Happy New Year

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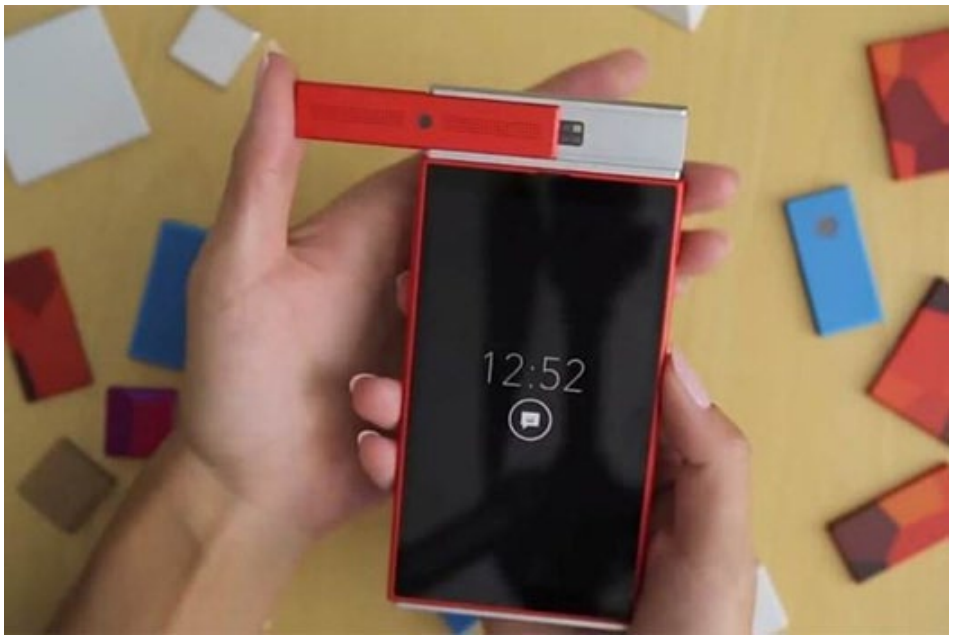
Google's Project Ara: Piece together your Android

http://archive.financialexpress.com/news/google-s-project-ara-piece-together-your-android/1303756/3



What if you could decide the power of the processor, resolution of the display and sensor of the camera every time you picked up your smartphone to leave home? It might sound like science fiction, but this is exactly what Google is working on at the moment. In fact, its Project Ara aims to bring in a modular smartphone that can be changed according to the user's character and preferences.

While IndianExpress.com got a sneak peak into the prototypes, the market pilot is expected to be available in 2015. Paul Eremenko, who developed the project and leads it now, sums up the concept as the hardware version of Android. "Our stated objective around Project Ara is to democratise the hardware ecosystem around mobile. We want to drastically lower the barrier of entry for developers," he added in a video chat earlier this week. "We decided to go ahead with Project Ara because we felt that finally we were at a point where the overhead penalty of making something modular could be made small enough that it would be acceptable to the consumer."

At the core of Project Ara is the endoskelton, or the frame, on which the modules will go. Google want to produce these for around $50 and spawn and app level of innovation with the modules. The idea is to let developers market the modules directly to consumers, maybe through the Google Play store. This means once you buy the endoskelton, you can go to the store and buy any module you want. There will be three frame sizes to choose from, the mini, medium and jumbo and the smallest of them will have slots for 10 modules.

The possibilities are endless. For instance, you could buy a jumbo frame and use only half of it for the screen, the rest could be the keyboard. If on a long trip, you could drop a lot of other modules and replace them with battery modules so that you don't run out of power.

While it seems as simple as building blocks, Project Ara will actually be ushering in cutting edge technology into your hands. This is the first initiation of a network on device concept in the mobile form factor, explains Eremenko, adding that any modules can draw or supply power and also be a power storage device at the same time. While the modules will transmit data and power using inductive contactless coupling, they will have electropermanent magnets that connect them to the frame. Simply put, the design wont have any connectors and users will be able to hot swap any module.

Eremenko thinks the biggest impact will come when people will be able to manage power better by being able to use multiple battery packs and also when developers start bringing in fitness modules.

While critical mass is still a couple of years away, over time Ara could end up being a cheaper alternative as it will let users avoid paying for hardware features they never use. But for now Eremenko says pricing is a long way off.

Google understands that the thirst for customisation is much more on mobile and that will be one of the key drivers for adoption of Project Ara. And Google is not the only company trying to cash in on this. While Chinese telecom giant ZTE has showcased its modular concept called the Eco-Mobius, Israeli startup Modu Mobile which was making a name for itself with modular phones

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Contd. from page 1

designs was acquired by Google a couple of years back. Eremenko says Google is interested in making the modular phone platform interoperable and that is why they have chosen industry standard protocol and put everything out there.

We are at least a couple of years away from being able to buy a modular phone frame or the modules to populate it. But when Project Ara is here, it could change the way we think about and use mobile phones. The tech world is looking at a scenario where small hardware developers could grow to scale by offering customers innovative modules which would not have found acceptance with mainstream brands. The appification of mobile phone hardware is almost here.

Building blocks

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E-Motor Winding- In a BIG Way

EPLAN design software offers accelerated design for a variety of specialized machine projects

AMT-Advanced Machine & Tool Corp. specializes in the building of coiling and winding equipment and other machines used in the production of electric motors, generators, alternators, and other devices. The engineering phase of fulfilling an order can take as little as three days, or, a typical order involves a customer wanting a single machine to produce a new motor.

AMT took a conservative approach to implement EPLAN (name of software). Using EPLAN is actually replacing AutoCAD Electrical. EPLAN electrical drawings for the machines it orders, expedites the production with improved accuracy.

For an assignment that might have taken two weeks working in AutoCAD, the biggest savings using EPLAN is about 23-28 work hours. For larger projects, the savings are proportionately greater. "Drawings are archived and can be easily found in EPLAN. A complete set of drawings can be brought up in just a few minutes without paper work. While the vast majority of our machines are custom, there are a few we repeat with minor adjustments. With EPLAN, we can pull up the drawings, make minor adjustments quickly and easily, and spin out a set of plans for it",says AMT engineers.

Finally, EPLAN helps integrate engineering and has made for a smooth transition. AMT Engineers states that, "We get a quick turnaround when we make a request—usually within the day.

This article has been contributed by a KTI student for Teclick. KBytes thanks the KTI, Academics Team for sharing this article and looks forward to such proactive participation from all members of the Kohinoor family.

Kwiz

Q1 Sun Microsystems was acquired by which company?

1. Hewlett Packard
2. Oracle
3. IBM
4. Apple

Q2. Adobe created the PDF. The PD is for "portable document". What is the F for?

1. Format
2. Folder
3. File
4. First

Q3. What was the tablet computer released by Blackberry in 2011?

1. Playbook
2. Playbox
3. Playboy
4. Playberry

Q4. What is the largest search engine in Russia?

1. Google
2. Baudu
3. Bing
4. Yandex

Q5. Which service was discontinued by Google in 2011 to make way for Google +?

1. Google Buzz
2. Google Reader
3. Orkut
4. MySpace

Answers of November issue

Q 1. Steve Wozniak
Q 2. Shuffle
Q 3. Nullsoft Inc.
Q 4. TED
Q 5. HTC

Answers of December issue
Q 1. Oracle Q 2. Format
Q 3. Playbook Q 4. Yandex
Q 5. Google Buzz

Top 5 Trends in Hotel Technology

http://hospitalitytechnology.edgl.com/news/Top-5-Trends-in-Hotel-Technology-89637

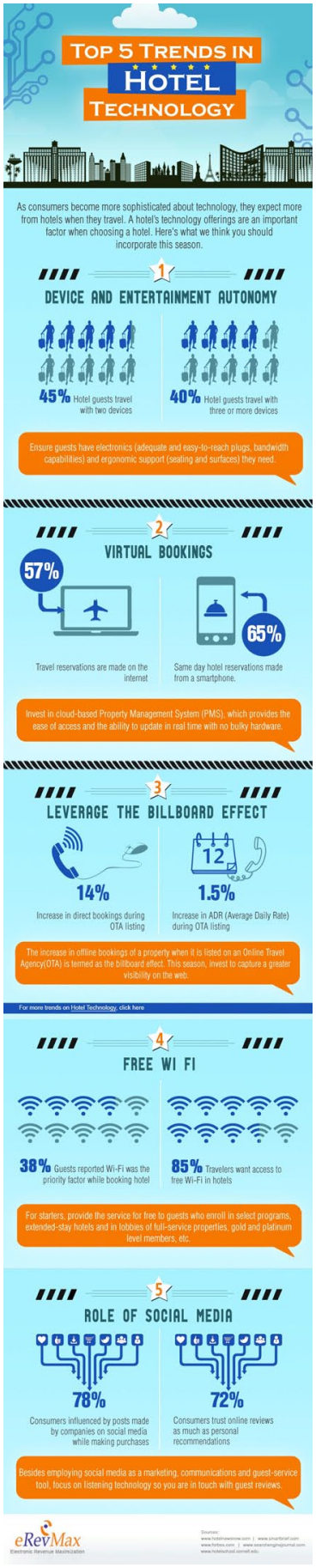
eRevMax has unveiled an infographic to assist property owners around the world to know about the latest technology trends topping the charts this season.

One of the current trends listed deals with device and entertainment autonomy. A SmartBrief poll showed that 45% of hotel guests travel with two devices and 40% with three or more. Thus, ensuring guests have electronics (adequate and easy-to-reach plugs, bandwidth capabilities) and ergonomic support (seating and surfaces) becomes essential for hotels.

Another important tip by the hotel solutions provider is to leverage the billboard effect, defined as the increase in offline bookings of a property when it is listed with an Online Travel Agency (OTA). An experiment conducted by Cornell University observed that one of the participant hotels experienced an impressive 14% increase in direct bookings when it contracted with an OTA. Besides, Average Daily Rate (ADR) increased by 1.5% during OTA listing of the same property.

According to the infographic, 38% of the guests reported that Wi-Fi was the priority factor while booking a hotel. Also, a whopping 85% of travelers said they wanted access to free Wi-Fi in hotels. eRevMax suggests hoteliers to provide the service for free to guests who enroll for their select programs, for starters. Such services may be made exclusive for gold and platinum level members or accessible in lobbies of full-service properties.

These are important insights for property owners and serve as a helpful reminder to get thinking about what is important to guests who want to stay connected virtually.



Did You Know?

How to start a blog

http://timesofindia.indiatimes.com/tech/how-to/Where-to-start-while-starting-a-blog/articleshow/42109931.cms

Start your search by thinking about the type of blog you want to have and how much control you want to have over the look and domain name. Free blogging services usually have a set of standard templates and easy controls to get started, but the design is usually not terribly flexible. Paid services often offer more design control, feature management and tools.

If you are an artist or a photographer and want to quickly post about the things you see, a visually-oriented platform like Tumblr may work best; Tumblr is free and has its own mobile apps for blogging on the go. If you want to compose long and thoughtful essays, a blogging platform suited to longer writing and editing, like Medium, may be most useful. (While Medium has a mobile app for iOS, it is currently intended for reading material on the site rather than writing.) Some platforms like Typepad and WordPress are flexible enough to handle either approach.

WordPress comes in two versions. One is the free WordPress.com site, which provides less customization but hosts the blog on its own servers and has its own mobile apps. The other version is found at WordPress.org, where the WordPress blogging software can be downloaded and used on someone else's servers. You have more control over the look and feel of the blog there.

Some free services, like Google's Blogger, make it easy to set up a basic blog, especially if you already use some of the company's other products, like Google Plus Photos. Paid services like Squarespace may cost $8 a month or more, but you get technical support along with perks like search-engine optimization and slick designs that work for both desktop and mobile readers.

Gizmo Talk

US FDA Approves Swallowable Sensor That Tracks Health From The Inside

http://illnessopedia.org/news-details/fda-approves-swallowable-sensor-that-tracks-health-from-the-inside-87/

The US Food and Drug Administration has approved an ingestible digital sensor that can be swallowed in a pill to track health data from inside the body. The idea is that the data can be used not only by patients themselves, but also by caregivers and doctors to individualize their care.

The ingestible sensor, formerly known as the Ingestion Event Marker or IEM, is already approved for use in Europe.

It is the first "digital pill" to receive FDA approval, in a move that its maker Proteus Digital Health, whose headquarters are in Redwood City, California, sees as the start of an era where digital medicine "shifts the care paradigm".

On Monday, George Savage, co-founder and chief medical officer at Proteus Digital Health, told the press:

"We are thrilled to have achieved this important milestone to market our ingestible sensor in the United States now, as well as in Europe."

"We are very much looking forward to bringing the benefits of our ingestible sensor to the American public in the form of innovative product offerings," he added.

The ingestible sensor, which is about the size of a grain of sand and made mostly of silicon, is part of an integrated system designed to give patients and their doctors "end-to-end personal health management".

Embedded in a pill or tablet, the device can help keep an eye on whether patients are taking their medications at the prescribed time and rate.

This is important, because although the effectiveness and safety of drugs are established in clinical trials, those tend to follow well-controlled conditions, with patients taking their drugs at the prescribed rates in the right quantities.

But at home, adherence to prescribed regimens may not be so easy to monitor, and without information about precisely when patients are taking their medication, doctors can't see if that is the problem, should the drug not work as it should.

The sensor does not contain a battery, it works like a "potato battery" that children make in science lessons at school. It has two conductive materials, one on either side. When these get wet in the stomach, they power the sensor for a short amount of time.

So once it comes into contact with stomach fluid, the sensor powers up, and "communicates a unique signal that determines identity and timing of ingestion", says Proteus.

The ingestible sensor passes through the body in much the same way as high-fiber food, according to information on the company's website.

The signal that it sends from the stomach travels through the patient's body to a patch worn on the skin. The patch contains technology that senses the signal and records the exact time the ingestible sensor was swallowed.

The patch can then send this information to a mobile phone application, and with the consent of the patient, be passed on to doctors and caregivers, so they can provide better quality care.

Proteus says its integrated "feedback" system is also designed to collect a range of other measurements, such as for heart rate, body position and activity.

Eric Topol, geneticist and cardiologist, is a professor of genomics at The Scripps Research Institute and wrote a book called "The Creative Destruction of Medicine: How the Digital Revolution Will Create Better Healthcare" where, among other things, he says technology that gives doctors a continuously updated picture of what is happening with each patient, will help them provide better, individualized care.

Topol told the press:

"The FDA validation represents a major milestone in digital medicine. Directly digitizing pills, for the first time, in conjunction with our wireless infrastructure, may prove to be the new standard for influencing medication adherence and significantly aid chronic disease management."

Skanska to use 3d printing in construction

"http://www.constructionglobal.com/equipmentit/365/Skanska-to-use-3d-printing-in-construction"

Skanska has signed a collaborative agreement with Loughborough University in the UK to develop the use of 3d printing technology in the construction sector.

The university has granted Skanska a license to use its concrete printing technology - taking it out of the laboratory and onto construction sites in real-world application. Skanska is also collaborating with Foster + Partners, Buchan Concrete, ABB and Lafarge Tarmac as it aims to develop a 3D printing supply chain.

A team from Loughborough's School of Civil & Building Engineering - headed up by Richard Buswell and Simon Austin – has been working on the development of 3d printing technology for the construction industry since 2007.

The Engineering & Physical Sciences Research Council (EPSRC) under their Innovative Manufacturing & Construction Research Center (IMCRC) led the project. The team developed 3d concrete printers, which are fitted to a gantry and robotic arm.

The printer deposits a high–performance concrete precisely under computer control. It works by laying down successive layers of concrete until the entire object is created. The printer can make things that cannot be manufactured by conventional processes such as complex structural components, curved cladding panels and architectural features.

The aim of the initial 18-month development programme is to develop the world's first commercial concrete printing robot.

Rob Francis, Skanska's director of innovation and business improvement said: "3d concrete printing, when combined with a type of mobile prefabrication centre, has the potential to reduce the time needed to create complex elements of buildings from weeks to hours. We expect to achieve a level of quality and efficiency which has never been seen before in construction."

Dr Richard Buswell from Loughborough University's Building Energy Research Group said: "The modern construction industry is becoming more and more demanding in terms of design and construction. We have reached a point where new developments in construction manufacturing are required to meet the new challenges and our research has sought to respond to that challenge.

"We are pleased and excited by the opportunity to develop the world's first commercial 3D concrete printing robot with Skanska and their consortium. We have been convinced of its viability in the lab, but it now needs the industry to adapt the technology to service real applications in construction and architecture."

Tech trivia

- .ch is the domain name of Switzerland.
- The iPhone app Instapaper lets users save magazine, newspaper and blog pieces for reading later.
- Toy Story was the first animated computer generated feature film.
- In 1994, Jeff Taylor founded the famous employment website monster.com
- The software Flash was named for the term "Future-Splash".

This is the farewell issue of 2014. With 2015 being announed as the Kohinoor Eff-Tech Year, we wish everyone A Happy & Advanced Eff-Tech Year.

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

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