



OPEN
Compute Project



TechTalk

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How Facebook Is Eating The \$140 Billion Hardware Market

It started out as a controversial idea inside Facebook. In four short years, it has turned the \$141 billion data center computer hardware industry on its head. Facebook's extraordinary Open Compute Project is doing for hardware what Linux, Android, and many other popular products did for software: making it free and "open source." That means that anyone can look at, use, or modify the designs of the hugely expensive computers that big companies use to run their operations. All for free. Contract manufacturers are standing by to build custom designs and to build, in bulk, standard designs agreed upon by the group.

In software, open source has been revolutionary and disruptive. That movement created Linux, which the software is running on most data centers around the world, and Android, the most popular smartphone platform in the world. Along the way, massively powerful companies like Microsoft, Nokia, and Blackberry were disrupted, some to the brink of extinction.

OCP threatens to do the same to decades-old hardware companies like Cisco.

Since it's launched in 2011, OCP has:

- Saved Facebook \$2 billion.
- Cut Fidelity Investments' data center electric bill by 20%.
- Nabbed Microsoft as a board member, meaning Microsoft is using OCP hardware in its huge data centers and contributing back to the designs.
- Ditto for Apple.
- Created better careers for hardware designers, who can now collaborate instead of being forbidden to share trade secrets.
- Launched an eco-system of products and startups.
- Created a \$1 billion+ business for at least one Chinese manufacturer.
- Put networking giant Cisco on notice.
- Convinced HP to stop fighting the movement and join it.

Shake Hands with the New Lenovo™ ideacentre™ Stick 300:

Affordable Personal Computing in the Palm of Your Hand

Lenovo on 22 June 2015, announced the company's first compute stick, the Lenovo™ ideacentre™ Stick 300. Designed for consumer usage in the home and on-the-go, the new pocket-sized compute stick is powerful enough for entertainment and web browsing, while affordable enough for existing PC owners to justify owning a second or third mobile PC option. The ideacentre™ Stick 300 expands the mobile computing experience and options for savvy shoppers and is suitable for use in the home, dorm or office, while simultaneously offering portability and convenience for travelers. For the wallet friendly starting price of US \$129, this plug and play technology can transform almost any HDMI compatible TV or monitor into a fully functioning Windows-based PC. The ideacentre™ Stick 300 does not look like a traditional computer, but it performs like one once a 2.4GHz wireless keyboard and mouse are added.



The Future is Now

Smartphone Technology Enables Blind To 'See'

Source: PTI

London Scientists are developing new adaptive mobile technology that could enable visually-impaired people to 'see' through their smartphone or tablet.

Specialists in computer vision and machine learning based at the University of Lincoln, UK, funded by a Google Faculty Research Award, are aiming to embed a smart vision system in mobile devices to help people with sight problems navigate unfamiliar indoor environments.



Based on preliminary work on assistive technologies done by the Lincoln Centre for Autonomous Systems, the team plans to use colour and depth sensor technology inside new smartphones and tablets to enable 3D mapping and localization, navigation and object recognition. The team will then develop the best interface to relay that to users - whether that is vibrations, sounds or the spoken word. "This project will build on our previous research to create an interface that can be used to help people with visual impairments," said Project lead Dr Nicola Bellotto, an expert on machine perception and human-centred robotics from Lincoln's School of Computer Science.

"There are many visual aids already available, from guide dogs to cameras and wearable sensors. Typical problems with the latter are usability and acceptability." If people were able to use technology embedded in devices such as smartphones, it would not require them to wear extra equipment which could make them feel self-conscious.

There are also existing smartphone apps that are able to, for example, recognize an object or speak text to describe places. But the sensors embedded in the device are still not fully exploited. "We aim to create a system with 'human-in-the-loop' that provides good localization relevant to visually impaired users and, most importantly, that understands how people observe and recognize particular features of their environment," said Bellotto.

The research team, which includes Dr Oscar Martinez Mozos, a specialist in machine learning and quality of life technologies, and Dr Grzegorz Cielniak, who works in mobile robotics and machine perception, aim to develop a system that will recognize visual clues in the environment. This data would be detected through the device camera and used to identify the type of room as the user moves around the space. A key aspect of the system will be its capacity to adapt to individual users' experiences, modifying the guidance it provides as the machine 'learns' from its landscape and from the human interaction.

So, as the user becomes more accustomed to the technology, the quicker and easier it would be to identify the environment.

Lexus Builds A Working Hoverboard

Source: www.rt.com/usa

While it isn't quite a flying car, one highly-anticipated vision of 2015 predicted 30 years ago in 'Back to the Future' seems to be just around the corner: Lexus has announced that it managed to build a functional hoverboard.

That's right: a skateboard that carries the rider above the ground. The board isn't up for sale yet, but this is still amazing news for anyone disappointed by the present day being a far cry from the 2015 visited by Marty McFly in the 1985 classic 'Back to the Future', which famously featured hoverboards in an iconic scene.

The device is billed as the "first real, rideable hoverboard" on the Lexus website and is branded under the name SLIDE. Indeed, a video demonstrates it sliding through the air like a floating skateboard, although a rider is conspicuously absent.

The gravity-defying board is made possible with magnetic levitation, using nitrogen cooled superconductors, according to the website. It is designed to utilize materials familiar to users of Lexus products, such as those that the car brand's interiors are often built with, including bamboo.

"When technology, design, and imagination come together, amazing things can be achieved. Presenting SLIDE," Lexus said in a tweet. The promotional video shows the board working on pavement, rather than just on metal tracks like previous attempts at creating a hoverboard. The technological principles behind this board already have serious commercial applications. The Lo series of maglev train set a rail speed record of 375 mph (603 km/h) in April.

"It's very confidential information but we have been studying the flying car in our most advanced R&D area," Hiroyoshi Yoshiaki, a managing officer in Toyota's Technical Administration Group, said. A "flying car means the car is just a little bit away from the road, so it doesn't have any friction or resistance from the road."



Technology Focus

Top 10 Tech Trends In Business Meeting

The day is not too far away when drones, mood lightening and wireless networking are coming to the meeting place - impacting CXOs and meeting planners in a big way. The International Association of Conference Centres (IACC) recently revealed a list of the top-10 meetings-related technology trends that are affecting venues and planners across the globe. While it may take a few years for some of these technologies to mature, the starting point would be 2015 when businesses will begin implementing these practices or witness these trends at the meetings ground.



1. The Millennials: More fluent in technology, this new generation is addicted to social media, is even more environmentally conscious than their predecessors - the Gen Xers, and has high expectations of connectivity, interactivity, and the ability to influence and engage in dialogue. They know how to seek out free Wi-Fi, and as they enter the workplace and start attending meetings, they expect Wi-Fi to always be free and fast!

2. Think Socialising rather than Networking: Socialising at work used to be frowned upon, taking on somewhat negative connotations. But increasingly, socialising is seen as relationship-building and for meetings, conference venues encourage relaxed socialising by providing multi-use spaces for conferees to gather together. It turns out that conferees actually do talk business in these welcoming environments!

3. Mood switching: Meeting rooms have seen radical makeovers in terms of design, colour and creative seating options of late. New developments in technology have allowed venues and organisers to instantly change the look and feel of a meeting room with user controllable LED mood lighting, high-tech furniture groupings and more.

4. GPS-based app technology: Important advances in GPS-based app technology enable planners and venues to now personalise a conferee's welcome and offer other location-based alert notifications upon arrival. For example, a badge is printed when the delegate enters the geofence (think venue), with notification sent via the app to the badge printing location. Providing useful location information and navigation assistance, the geofence can notify attendees where they are on a map and give guidance on where they wish to go.

5. Information Exchange: Developments in app-based two-way communication means that with user permission, one's smart phone can easily transmit contact information, social media profiles, specific meeting room access information, meal tracking, food preferences, and much more. Communication between attendees can be enhanced with notifications, pictures and other information about who is nearby. Consider the value of automated demonstrations (videos, etc.) for exhibitor products that meeting groups can offer their sponsors as a marketing enhancement. Instant and targeted contact is king today; new technologies and applications that help foster participant engagement and social interaction will grow in popularity and usage.

6. Drones: We have seen a dramatic rise in the use of drones in extreme sports — and now conference organisers are using this affordable technology to capture creative event photos and map out the venue for GPS integrated conferences. What will "tomorrow's" technology bring to outpace the functionality of drones?

7. Wireless charging: Just when venues think their under-counter box of chargers is current and complete, technology moves on and we get closer to a single standard for wireless charging technology, after years of competing standards. Currently pushing for a single standard, QI Consortium boasts wireless charging points in 3,000 hotels. With large scale furniture makers such as IKEA installing standardised wireless charging into tables and desks they sell, the writing is on the wall for meeting venues to incorporate wireless charging points into bar tops, meeting room tables and guestrooms. They better do so this year, as 2015 is sizing up to be the year the hospitality industry finally took standardising wireless charging technology and its availability seriously!

8. Virtual experience: There are times when it's just not possible to get everybody in the same place at the same time. Conference venues understand this and are making the virtual attendee experience much better. How? Venues are developing meeting rooms with multiple ceiling-mounted microphones, high-bandwidth connectivity and advanced software solutions to provide seamless integration into the meeting for virtual attendees, faculty and guest speakers. Additionally, there is an increase in clients wanting to capture video to send to another physical location, where a second group of participants are gathered.

9. Street view Technology: The trend toward part-time meeting planners who are NOT full-time professional planners but may be an executive assistant, marketing coordinator, human resource professional or department head, is on the increase. Today's meeting planner, therefore, expects and requires more from their venue partners, in terms of evaluating venues' capabilities to support their meeting or event. When a planner cannot conduct an in-person venue inspection, technology is fast evolving using the Google Street View concept to provide valuable virtual venue tours, multiple room images showing different meeting layouts and even property video footage.

10. buying Your Meeting Online - More and more clients are using the web as their primary tool for making purchasing decisions. One IACC venue recently reported 70% of all new business comes via online search activities and they expect that number to grow. The venues that will be the most successful in capturing this business will have websites that serve not only as marketing brochures but as the primary tool for their clients to plan, book, purchase, and engage with them for their next meeting.

Mark Cooper, IACC's CEO, commented, "Meeting Planners are seeing their role influenced more and more by technology, not just for the meeting itself, but in researching and booking venues, how planners interact onsite and how they communicate following the meeting."

"The balance between technology and in-person relationships is an interesting one, with a need to attain a balance of the two in order to plan and deliver successful meeting outcomes," he summed up.

Tech News

How India Is Banking On Apple Watch



While analysts in the global markets are still debating whether the newly launched Apple Watch can really bring wearable computing into the mainstream, India's banking sector - which is at the forefront of innovation - seems to be upbeat. Several of them believe that the Apple Watch could present a new way for banks to provide service features to their customers. Therefore, even before Apple Watch hits the domestic market, India's two leading banks – ICICI and HDFC Banks announced applications for the device. Last week, Robosoft Technologies, a mobility solutions partner, who has developed a proprietary banking solution for the Apple Watch. The company has partnered with the ICICI Bank to integrate the bank's banking services, by creating banking apps for the Apple Watch.

The ICICI Bank app connects a user's device with his ICICI bank account. It integrates with ICICI's existing backend systems and has features specific to the minimal Apple Watch interface. The app also makes use of the Glances feature of the Apple Watch where a simple account summary can be viewed without launching the app. It also guides users to ATMs nearby, by using real-time feedback, with turn-by-turn navigation. This app can be downloaded from the App Store, said the company.

"Soon after the Apple Watch was announced, we saw the tremendous potential the device has to offer for various new kinds of use-cases. We set out to create a unique, proprietary platform that can help banks build on-the-go banking solutions while quickly integrating with existing back-end systems", said Rohith Bhat, CEO & MD, Robosoft Technologies. "Our proprietary solution on the Apple Watch can help banks offer banking solutions on the device within two weeks as it integrates easily with their backend systems. It has a slew of features that take advantage of the technology in the Apple Watch and banks will delight their customers by offering their app on this device," he added.

ICICI Bank Executive Director, Rajiv Sabharwal earlier said that initially customers will only be able to do certain transactions like checking balance, viewing last three transactions, recharging prepaid mobiles and pay bills. He also added that the Bank may add the near field communications-based features which make payments easier.

ICICI Bank witnessed 37 lakh transactions on its mobile banking application last month and over 30 percent of its active user base does banking over the mobile. The Bank claims that it leads in mobile adoption among retail customers.

HDFC Bank also announced its Apple Watch compatibility last month. "Your bank is set to become the first domestic lender whose Mobile Banking App will be available on the Apple Watch which is to be launched here later this month," HDFC Bank MD and CEO Aditya Puri had told customers in an e-mail, which states that the HDFC Bank customers will be able to do 11 transactions on their Apple device using the 'watchbanking' service.

The price of Apple Watch starts at \$349 and it is estimated that Apple will sell 26.3 million units by the end of 2015. Globally too it is becoming an area of interest to the banking sector. "Imagine being able to check your balance right from your wrist, without reaching for your phone," said Matt Krogstad, VP of mobile banking and payments at Bank of The West to American Banker. His San Francisco bank, a unit of BNP Paribas, is interested in making its quick balance feature, which lets people check their balances without signing in, available on Apple Watch.

While wearables is still at a nascent stage - especially in India - analysts believe it can change the face of enterprise and consumer wearables in the coming months.

Digital Drives One-Fifth Retail Sales In India



A surge in the adoption of smartphones and number of Internet users in India is influencing the retail sector in the country more than ever. These digital devices are said to exert a strong influence on in-store purchases, according to a recent report by consulting firm Deloitte Touche Tohmatsu India. The research firm expects the trend is here to stay and highlights the need for retailers to adopt an omni-channel strategy.

The report titled: "Navigating the New Digital Divide" states that close to 21% of the total shopping in India, or Rs.60,000 crore of in-store retail purchase, was influenced by digital devices including desktop computers, laptops, netbooks, smartphones and in-store devices such as payment kiosks, mobile payment device. According to the report, India currently has more than 140 million smartphones, and the number is estimated to grow to 500 million by 2020. Internet users are also estimated to grow to 600 million by 2020 from 300 million at present.

"Digital has become a preferred medium to research. Typically, people used to walk in and discover products but now people walk in with digital discovery and we are seeing people use digital touchpoints post-buying as well to understand product features, etc.," said Rohit Bhatiani, director at Deloitte. The report, which studied close to 2,000 urban Indian shoppers, said the conversion rate of shoppers who use a digital touchpoint is 40% higher than the non-digitally influenced shoppers. Two third of consumers end up spending more as a result of using digital devices. Nearly 40% shoppers are now spending at least 25% more, the report said, adding that digital information, reviews, recommendations and online discounts or coupons are driving shoppers to spend more. For these digitally influenced shoppers the dominant categories being electronics, apparel, books, music and entertainment.

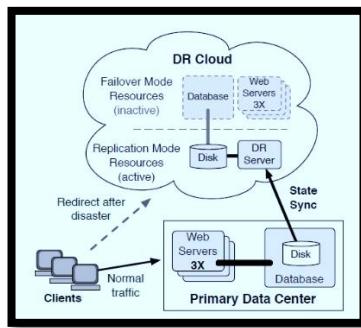
According to Bhatiani, today's consumers are not looking at channels differently. He would want the flexibility of buying and returning the products from any channel. "Today, 90% of the retailers do not have a mobile app or mobile-friendly websites and hence these retailers are not even considered by consumers for pre-buying research. Retailers need to create a strong meaningful digital presence to attract customer attention," he added.

Special Focus

Why Cloud-Based DR Is A Compelling Alternative

Natural or manmade calamities can disrupt business continuity on an unprecedented scale. Three recent incidents illustrate this vividly:

- In October 2014, Cyclone Hudhud caused over 125 deaths and estimated damages of Rs 21908 crore (US\$3.4 billion) in and around Visakhapatnam in Andhra Pradesh.
- In July 2012, a massive power outage affected more than 620 million people across 22 states in North and East India with an estimated 32 gigawatts of generating capacity going offline.
- In June 2012, a fire at Mantralaya, the Maharashtra state secretariat in Mumbai, destroyed 2000 computers and an estimated 4.8 crore pages of government files.
- And the more recent The Nepal earthquake measuring 7.8 on Richter scale not only devastated Nepal but also had an impact on the economy of the region. The U.S. Geological Survey estimates losses could exceed the landlocked mountain state's \$20 billion annual gross domestic product. A U.S.-based consultancy IHS puts the rebuilding cost at \$5 billion over the next five years.



And these disasters are mere examples of the massive impact they had on the Business continuity of enterprises in affected areas. Business enterprises, today, rely on their IT infrastructures for seamless flow of operations and staying ahead of their competition for some business enterprises like the financial services sector or the much hyped eCommerce sector, cannot operate/function without a robust and a reliable IT infrastructure. Any loss in service would result in huge loss of critical data and information that would cripple these businesses. The loss is not just confined to data alone, the reputation or the credibility of the business is at stake here.

Whether caused by technical problems or natural phenomena, it is the responsibility of IT organizations to restore business to a fully operational state. Moreover, growing compliance and regulatory needs compel business enterprises to have DR and Business Continuity plans in place. The bottom-line being, availability of services even in the event of a disaster whether natural or manmade.

The challenge for any business enterprise is how to measure returns on investment made (TCO vs ROI) in developing a DR site. After all, developing a DR site involves huge capital expenditure (CapEx) and most of the time the infrastructure remains idle, further adding to the cost. The traditional solutions for backup and recovery till recently were either not mature enough to fulfill the need for a robust DR solution or they were too expensive to deploy. Moreover, these solutions were so slow that should a disaster happen, the recovery time used to run into days, even months.

Today, however, the situation has changed, Cloud has become compelling alternative to physical IT infrastructure and for enterprises that want their DR sites to be up and running in no time in the event of a disaster. The cloud offers ease of operation, faster recovery and lower costs, both in terms of infrastructure and administrative overhead. In brief, leveraging the cloud as a DR platform can provide business enterprises with a better value option than traditional methods, irrespective of their size. More so today, when business enterprises have clearly seen value in buying and consuming IT as a service vis-à-vis dedicated hosting environments. Infrastructure as a Service (IaaS) has added a whole new dimension to the world of IT by clearly converting CapEx into operating expenditure (OpEx) or pay as you use. Enterprises no more need to invest in Compute, Storage, Network, Security, and Software as all are offered as-a-service – a part of IaaS. DR tools have become automated and sophisticated and come along with features like real time "RPO/RTO" dashboards, granular automated workflow based recovery, online Drill reports, which help organizations in eliminating manual dependency for recovery. Automated Drill reports help in compliance needs and show actual areas of improvement to meet the objectives of the Recovery plan. These tools help in continued monitoring of replication and help administrators in taking action on specific problems.

So even if your organization's primary site has physical infrastructure, your DR site (secondary) can be on Cloud. With the help of continuous replication and methods of replication (host based, storage based or block replication), the loss of data (RPO) can be and recovery times (RTO) can be minimized. This helps in optimizing IT infrastructure usage resulting into cost saving for the business enterprise. Inherent Cloud features like Auto scaling, Cloning, Load balancing further ensure that investments in Cloud Infrastructure assure recovery with better Total Cost of Operation.

"DR on cloud" is certainly a viable option for "Recovery" needs of an enterprise. It considerably reduces the time for deployment from months to days. Having a Cloud DR site in a different seismic zone than the Primary site ensures that the data and mission critical applications are protected in case a disaster strikes the primary DR site. Designing a DR on Cloud service is not a one-size-fits-all activity. Since every company is unique in the applications it runs and the priorities it assigns to processes, a DRaaS plan — like a traditional DR plan — is unique for every enterprise. Hence, the right solution design with the correct combination of IT elements integrated as per an enterprise's need of recovery, are key to success. Solution design is a critical constituent of DR on Cloud service. Factors to be kept in perspective while designing a Cloud DR solution are IT infrastructure landscape of the primary site, the organization's RPO/RTO needs, connectivity between the primary and the Cloud DR site, number of people accessing DR site etc. Along with right solution, it is equally important that the DR solution provider follows best practices, ISO standards and compliance guidelines. DR drills must be an integral part of the service offering because an un-tested DR solution could turn out to be potential risk. At the same time, choosing a Cloud DR partner can be an important parameter in determining the success of the service itself. Business enterprises must do a thorough check about the technical competencies, skills and expertise of the people employed with the Cloud DR Service provider as well as experience of dealing with customers from diverse industry verticals.

All said and done, Cloud DR provides some unique benefits to its users. The cloud's pay-as-you go pricing model not only lowers the costs but also eliminates hardware dependencies, potentially lowering hardware requirements at the DR site. Having said that, Cloud DR seems to be the best bet for business enterprises.

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MD Speaks

"With Greece on the brink of bankruptcy and the RBI Governor warning of a 1930s like great depression if central banks around the world keep printing money instead of creating real growth, is it going to be really as bad as it sounds? Well, the last time Mr. Raghuram Rajan predicted doom, the situation was upbeat and most wise men disregarded his warning - some even going as far as calling him a Luddite. This time, however, the situation is not all that bright and due to his previous prediction he is being taken a tad more seriously. I really hope that he finds a solution to isolate India from the impending crisis.

Another shocking piece of news is that Uber Technologies Inc. generates \$470 million losses on revenues of \$415 million and is being valued at \$50 billion. When an investment banker friend of mine told me that blood on the Balance Sheets attracts investors, I thought he was joking! Obviously not! The reasons for these losses are being given as the aggressive spends to promote the service in China and India. However, a closer look at the business model reveals that at least in India they have been buying business. The drivers are paid significantly more per trip than what the customer is charged. What will happen when they try to charge more from the customer or pay their drivers less. I don't think it's too difficult for either of them to switch loyalties! Enjoy the ride at Uber's expense.

And now, some exciting news for our enterprise customers. We have started offering our consulting services for software asset management that will significantly manage your compliance risk and at the same time reduce your costs by eliminating unnecessary licenses. Please contact us for some case studies and to know how we can help you in this respect."