



MCA DEPARTMENT

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**To submit your articles / feedbacks:**

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### Free open source software (FOSS) For Business

**Dr. Snehal Mistry, Editor**

With the many business and government organizations that now use open source software such as Linux, it's becoming increasingly clear that price is not the only advantage such software holds. If it were, companies that adopted it during the Great Recession would surely have switched back to the expensive proprietary stuff as soon as conditions began to ease, and that's clearly not the case.

Rather, free and open source software (FOSS) holds numerous other compelling advantages for businesses, some of them even more valuable than the software's low price. Need a few examples? Let's start counting.

#### 1. Security

It's hard to think of a better testament to the superior security of open source software than the recent discovery by Coverity of a number of defects in the Android kernel. What's so encouraging about this discovery, as I noted the other day, is that the only reason it was possible is that the kernel code is open to public view.

Android may not be fully open source, but the example is still a perfect illustration of what's known as "Linus' Law," named for Linus Torvalds, the creator of Linux. According to that maxim, "Given enough eyeballs, all bugs are shallow." What that

means is that the more people who can see and test a set of code, the more likely any flaws will be caught and fixed quickly. It's essentially the polar opposite of the "security through obscurity" argument used so often to justify the use of expensive proprietary products, in other words.

Does the absence of such flaw reports about the code of the iPhone or Windows mean that such products are more secure? Far from it--quite the opposite, you might even say.

All it means is that those products are closed from public view, so no one outside the companies that own them has the faintest clue how many bugs they contain. And there's no way the limited set of developers and testers within those companies can test their products as well as the worldwide community constantly scrutinizing FOSS can.

Bugs in open source software also tend to get fixed immediately, as in the case of the Linux kernel exploit uncovered not long ago.

In the proprietary world? Not so much. Microsoft, for example, typically takes weeks if not months to patch vulnerabilities such as the recently discovered Internet Explorer zero-day flaw. Good luck to all the businesses using it in the meantime.

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### 2. Quality

Which is more likely to be better: a software package created by a handful of developers, or a software package created by thousands of developers? Just as there are countless developers and users working to improve the security of open source software, so are there just as many innovating new features and enhancements to those products.

In general, open source software gets closest to what users want because those users can have a hand in making it so. It's not a matter of the vendor giving users what it thinks

they want--users and developers make what they want, and they make it well. At least one recent study has shown, in fact, that technical superiority is typically the primary reason enterprises choose open source software.

### 3. Customizability

Along similar lines, business users can take a piece of open source software and tweak it to suit their needs. Since the code is open,

it's simply a matter of modifying it to add the functionality they want. Don't try that with proprietary software!

### 4. Freedom

When businesses turn to open source software, they free themselves from the severe vendor lock-in that can afflict users

of proprietary packages. Customers of such vendors are at the mercy of the vendor's vision, requirements, dictates, prices, priorities and timetable, and that limits what they can do with the products they're paying for.

With FOSS, on the other hand, users are in control to make their own decisions and to do what they want with the software. They also have a worldwide community of developers and users at their disposal for help with that.

### 5. Flexibility

When your business uses proprietary software such as Microsoft Windows and Office, you are on a treadmill that requires you to keep upgrading both software and hardware ad infinitum. Open source software, on the other hand, is typically much less resource-intensive, meaning that you can run it well even on older hardware.

It's up to you--not some vendor--to decide when it's time to upgrade.

### 6. Interoperability

Open source software is much better at adhering to open standards than proprietary software is. If you value interoperability with other businesses, computers and users, and don't want to be limited by proprietary data formats, open source software is definitely the way to go.

### 7. Auditability



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With closed source software, you have nothing but the vendor's claims telling you that they're keeping the software secure and adhering to standards, for example. It's basically a leap of faith. The visibility of the code behind open source software, however, means you can see for yourself and be confident.

### 8. Support Options

Open source software is generally free, and so is a world of support through the vibrant communities surrounding each piece of software. Most every Linux distribution, for instance, has an online community with excellent documentation, forums, mailing lists, forges, wikis, newsgroups and even live support chat.

For businesses that want extra assurance, there are now paid support options on most open source packages at prices that still fall far below what most proprietary vendors will charge. Providers of commercial support for open source software tend to be more responsive, too, since support is where their revenue is focused.

### 9. Cost

Between the purchase price of the software itself, the exorbitant cost of mandatory virus protection, support charges, ongoing upgrade expenses and the costs associated with being locked in, proprietary software takes more out of your business than you probably even realize. And for what? You can get better quality at a fraction of the price.

### 10. Try Before You Buy

If you're considering using open source software, it will typically cost you nothing to try it out first. This is partly due to the software's free price, and partly due to the existence of LiveCDs and Live USBs for many Linux distributions, for example. No commitment required until you're sure.

### Disadvantages of Open Source Software

**It doesn't have single source for the system.**

This open source software must meet the requirement of acquiring multiple sources for the technical as well as the clinical support for the system.

**Acquisition of business logistics of the people.**

People who are going to have this open source software in their business must always have the knowledge on how on the logics of businesses. This is very important in order to adjust the codes and other configuration in order to make sure of having a systematic and appropriate flow of your business technically and clinically.

**Assuming ownership of the user.**

Using this system, more users as of today are assuming that they already owned the system even if they don't undergo proprietary licensing or different configuration processes in order to support the software.

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### Not a user friendly system.

This is considered to be not a user-friendly type of system since users will be facing difficulties as they get engage with some of the users in supporting the application of the system. Small organizations or businesses may also experience difficulty in affording some of the resources that they need to have for their business or organization individually.

Open source software plays an important role in enhancing the visibility of your business in public. There are lots of advantages that this particular type of system would be giving the people provided that they would be very careful in all the required data of the system. They must also have a wide knowledge about the system in order to determine its effectiveness and convenience given to the people even if there are some flaws that can be found in this system.

### Networks & Security with Digital Payments

Mr. Harshad Patel,  
Asst. Professor,  
B. M. College of Management (MCA),  
Surat

A **computer network** or **data network** is a telecommunications network which allows nodes to share resources. In computer networks, networked computing devices **exchange data** with each other using a data link. The connections between nodes are established using either cable media or wireless media. The best-known computer network is the **Internet**.

Computer networks differ in the transmission medium used to carry their signals, communications protocols to organize network traffic, the network's size, topology and organizational intent.

Computer networks support an enormous number of applications and services such as access to the **World Wide Web**, **digital video**, **digital audio**, shared use of application and storage servers, printers, and fax machines, and use of email and instant messaging applications as well as many others. In most cases, application-specific communications protocols are layered (i.e. carried as payload) over other more general communications protocols.



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### Threat's In Networks

A **computer virus** is a type of malicious software program ("malware") that, when executed, replicates by reproducing itself for infecting other computer programs by modifying them. Infecting computer programs can include as well, data files, or the "boot" sector of the hard drive. When this replication succeeds, the affected areas are then said to be "infected" with a computer virus. It's affect our data and stolen data and may be miss-use. So we need to add some security to prevent this type of activity which affects our data like..

1. **Deleting files accidentally**
2. **Viruses and damaging malware**
3. **Power failures**
4. **Theft of computer**
5. **Data miss-use.**

So Security must be required to add in networks to prevent the un-authorized used of data as well as miss-use of data.

**Data security** refers to protective digital privacy measures that are applied to prevent unauthorized access to computers, databases and websites. Data security also protects data from corruption. Data security is the main priority for organizations of every size and genre.

**Avoid identity theft and to protect privacy.**

1. Security is Fundamental
2. Plan ahead
3. Know what data you have?
4. Scale down data

5. Lock up.

### Digital Payment Systems:

An e-commerce payment system facilitates the acceptance of electronic payment for online transactions. Also known as a sample of Electronic Data Interchange (EDI), e-commerce payment systems have become increasingly popular due to the widespread use of the internet-based shopping and banking. Credit cards have become one of the most common forms of payment for e-commerce transactions. Various methods are used for digital payments like E-valet, Credit cards, debit cards (POS), Fund transfers etc...In a transformative attempt to weed out black money and corruption from public life, the Government of India has constituted a Committee of Officers to enable 100 per cent conversion of Government – Citizen Transactions to the digital platform.

### Methods for Digital-Payments:

1. Electronic Tokens:
  - A. Real Time :( DigiCash, Debit Cards, Electronic purse)
  - B. Post Paid Tokens(Electronic cheques, Credit card)
2. Electronic or Digital Cash
3. E-Valets
4. Fund Transfer(NEFT-RTGS)

When we move to cashless than we must to aware about the basic terminology

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which use for e-payments, because once peoples move to cashless than the fraud chances are increase day by day.

Electronic payment systems have a range of pros in comparison to traditional banking services

**Time savings** - Expenses control - Reduced risk of loss and theft - Low commissions - User-friendly Convenience. Privacy Integrity Compatibility Good transaction efficiency Acceptability Convenience Mobility Low financial risk Anonymity

**Restrictions** - The risk of being hacked - The problem of transferring money between different payment systems - The lack of anonymity. - The necessity of Internet access - Password Threats - False Identity

Exhibit 1: Levers of Front-End Innovation



Organizations find that the frauds in the e - Payment transaction is increasing year after year. Association for Financial Professionals AFP (2012) has reported percentage of organizations subject to attempted and/or actual payments fraud has shown an increase day to day. As per

**APF Source** 81% of the organizations with annual revenue over \$1 billion were victims of payments fraud. And no of way for frauds but no of tools are now be added to secure the e-Payments systems.

**Fraud Detection Tools** - Universal Payment Identification Code (UPIC) - ACH Block - IP Address Locator - Minimizing Charge backs - Automated Screening - Manual review - Order dispositioning - Security in e-payment process(SSL) - Awareness and Education - Protection from Internal Threats

With the development of e-payment options, the number of online shoppers and merchants has been gradually rising. This has provided fast, reasonably safe and relatively low cost operations for e-business. As the financial and other data is become digitized, the opportunities for e-payment frauds also continues to rise. Furthermore, new fraudulent and sophisticated techniques are being developed by the fraudster. The merchants and the consumers have to cautious and take preventive measure to minimize the fraud in e-payment transactions.

Networks and security are playing important role in any digital payments because all transaction being execute by networks so need to secure it for more beneficiary.

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### Student Corner:

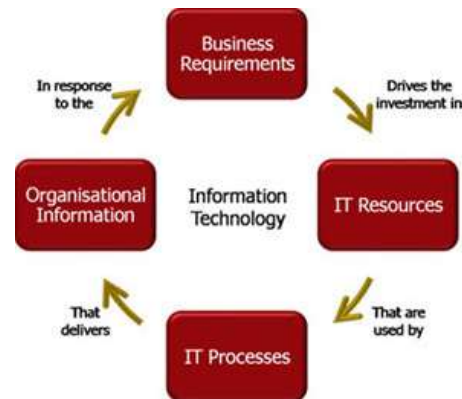
### The Role of Information Technology in Business Success:



**Mr. Kapadiya Hardik**  
(Student of MCA)

Innovation is the great way to success in this digital age. The path of innovation in business means doing something different, smarter or better that will make a positive difference in terms of value, quality or productivity by using emerging or proved technologies of the world. The technology which has already proved itself in last two decades is of course the information technology (IT). It has dramatically changed the lives of the individuals and organizations. Currently online shopping, digital marketing, social networking, digital communication and cloud computing etc. are the best examples of change which came through the wave of information technology.

Now accurate business planning, effective marketing, global sales, systematic management, real time monitoring, instant customer support and long term business growth cannot be achieved at the optimum level without IT.



### The Importance of Information Technology in Business

The success of every business depends on certain factors. Some of which are accurate analysis, choosing the right technology and the future vision. Research from the last two decade has proved that those organizations that do invest in technology and choose the path of innovation increase their market share, financial figures and overall competitiveness.

Information technology is the only technology which provides you the opportunity to analyses specific data and



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plan your business journey accordingly. It also provides you many tools which can solve complex problems and plan the scalability (future growth) of your business.

In the modern age, it is proved that digital marketing is a great tool which let you promote your products or services to the global market while sitting in the comfort of your remote office or home. And thanks to the cloud computing and modern communication which enable you to form a global organization, manage and monitor its virtual offices all over the world.

## Face book tricks & Tips

**Mr. Yash Asti**  
(Student of MCA Integrated)

If you surf Face book on daily basis or occasionally, chances are you're already familiar with regular stuffs like add/delete friends, update statuses, walls and profile, add and explore pages & applications, etc, but there's more.

### 1] How to Change Face book Homepage Background.

Hi friends. Most of us are almost bored by the same log-in page or home page of face book which we have to face every time we visit face book. So today I'm going to Show you how to Change the Background of Face book homepage. It's quite simple and easy.

### Requirements:

- Google Chrome
- Facebook Background Changer Extension

### Process:



- Go to [www.facebook.com](http://www.facebook.com)
- See on your top - right corner of Google chrome for the Extension you've just installed.
- Click on Options.
- Enter the URL of the image or locate in on your Hard-Disk.
- set if you want to repeat it horizontally or vertically
- Done!! Enjoy.

### 2] Write Blue color text:-

just type this below code, @[1: ]@[1:[0:1: any thing you wont to write type here]]

### 3] Making Your Profile Photo Un-clickable



The Trick:

Not everyone really wants to have their header image clickable, but yet that's the way Facebook header images work, or do they? Well, if you're curious, you should give this one a try:

### How to Do it:

- 1) Go to your Albums -> Profile Pictures
- 2) Select your current profile picture.
- 3) Adjust privacy setting to "Only Me"

### 4] Stop/Block Face book Game Requests

It is all fun and games until someone won't stop inviting you to play Candy Crush. Luckily, it is super easy to silence those requests!

There are two ways to do it – you can silence just a specific game or a specific person.

Go to Settings>Blocking

You will see these options:



Either type in the person you want to block from sending you app invites, or the game you don't want to play. Simple!

### 5] Disable "Seen" Feature In Face book Messages

Someone sends you a message in Face book, and you aren't quite ready to respond. But, drat, the messenger app tells them you saw the message! Luckily, there is a simple way to turn this feature off. You do have to be on the web version, not the app.

Simply go to your Face book Messages and click on the round icon next to the message you want to mark as unread.



Clicking on that icon will bring up box that says "Mark as unread". Bam. Plausible deniability has never been so easy.



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### 6] Blank status on face book.

It very easy just type this.

@[0:0:]

Then press Enter... That's it,

### 7] Write Blank comment and blank chat message.

Hold "alt" key and enter the digit "0173".

Then press Enter.

### 8] Write Blue color text:-

just type this below code,

@[1: ]@[1:[0:1: any thing you wont to write type here]]

## One Day Workshop on IOT: Prepared by: Ms.Tanvi Mittal

Ad.hoc Lecturer,  
B. M. College of Management (MCA),  
Surat

Bhagwan Mahavir College of Management (MCA), conducted a day-long workshop on 'IOT' in association with Tops Technologies.



This workshop was attended by 110 + participants. That Includes Faculty &

Students of MCA. Mr.Niraj Agnihotri key resource person for the workshop.

The workshop comprised of theory background and practical demonstrations of different IOT Tools & Programming languages.

The topic is a highly significant one for the present age and it was considered as well structured by the participants who attended.



Earlier, during the inauguration, the key note address has been delivered by Dr. Snehal Mistry, Director, Bhagwan Mahavir, BMEF. During his speech he conveyed his future plan of conducting a series of workshops in different category like Cyber Forensics, R-Tool, Python, Cloud, and Big Data, which are highly used in recent era of computer Science.

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