

# CONTENTS

|        |   |
|--------|---|
| Pg. 2  | <b>GUEST EDITOR'S NOTE</b>  |
| Pg. 5  | <b>From Chief Editor's Desk</b><br>Dr Nikhil Zaveri<br>Director & Principal,<br><b>SEMCOM</b> |
| Pg. 6  | <b>SEMCOM Updates</b><br>Editorial Team, DRIVE<br><b>SEMCOM</b>                               |
| Pg. 7  | <b>BOOK REVIEW</b><br>DR.KAMINI SHAH<br>Assistant Professor, <b>SEMCOM</b>                    |
| Pg. 9  | <b>ARTICLE</b><br>MR. PRATIK SHAH<br>Assistant Professor, <b>SEMCOM</b>                       |
| Pg. 12 | <b>Research Article</b><br>MS.HARSHIDA PATEL<br>Assistant Professor, <b>SEMCOM</b>            |
| Pg. 28 | <b>My Voice</b><br>Mr. Sunil Chaudhary<br>Assistant Professor , <b>SEMCOM</b>                 |
| Pg. 29 | <b>Managant</b><br>Dr.Vigna Oza<br>Assistant Professor, <b>SEMCOM</b>                         |
| Pg. 31 | <b>BEING</b><br>Mr. Dipan Bhatt<br>Assistant Professor, <b>SEMCOM</b>                         |
| Pg. 32 | <b>Go Green</b><br>Ms. Hiral Patel<br>Assistant Professor, <b>SEMCOM</b>                      |
| Pg. 34 | <b>Communicare</b><br>Ms. Nishrin Pathan<br>Assistant Professor, <b>SEMCOM</b>                |

Pg. 35

**SWARNIM GUJARAT  
EDITOTIAL TEAM,  
SEMCOM**

## Editorial Team:

Chief Editor : Dr Nikhil Zaveri  
 Managing Editor : Ms Nishrin Pathan  
 Executive Editor : Ms Hezbibah Mary  
 Technical Editor : Ms Reshma Pathak

# DRIVE

## Guest Editor's Note:

### Top Ten Skills an Employer Wants:



**Prof. I. C. Gupta, Education Management, UGC**

To get a job of one's dream is not an easy task.

Certain competencies or skills are required to get a dream job and for that job to give happiness, satisfaction and a sense of fulfillment and accomplishment. These competencies ensure that one gets the job, retains it and progresses. The top ten skills that employers look for in an employee are:

**Communication:** The expectation of an employer does not stop with good academic qualification and experience. He wants someone who can communicate effectively and efficiently thereby bringing about a tangible and desired growth and change in all possible areas of the organization. An employee has to put across his ideas and message quite clearly to the management, his colleagues, the customers, who have a definite say in the growth of an organization and the public at large. To have clarity and conciseness, an employee should have good written, oral and interpersonal communication. Clarity and conciseness are very

essentials in achieving the set objectives. Good communication skills bring out the other qualities that are required for success in an employee like confidence, teamwork, decision making skills, etc. It ensures that the work done, the product produced and the service provided are measured both qualitatively and quantitatively. Hence communication skill is longer an optional skill but an indispensable one.

**Teamwork:** Teamwork, like leadership, is a desirable and much sought after skill and teams are important organizational tools. Since a team is a group of people with complementary skills, who work together on a common project, goal, or service, in an interdependent and mutually supportive manner, teams can be utilized to build organizational capacity to overcome the challenges of speed, uncertainty, complexity and connectivity. Team works are the building blocks of the organization and so they ensure survival amidst business uncertainty and intense competition. It is a great way of improving productivity and boosting employee morale within an organization. Although individuals, by themselves can achieve great feats by virtue of their unique abilities, insights, instincts and perspectives, they can multiply their effectiveness by working in teams. The ability to work collaboratively in a team with mutual understanding, love and respect results in idea-sharing and knowledge-sharing exercises. Idea-sharing and knowledge-sharing exercises enrich team members in shorter durations thereby elevating individual and team productivity to higher levels. This instills in them a sense of belonging to the organization, as a part of a whole, and is further fortified and emphasized resulting in a sense of ownership of their work for the company.

**Commercial Awareness:** It is the ability to safeguard and sustain satisfactory work. It is the ability to tell your employers that you are aware of the market trends, marketing strategies, the political, economic and societal environment in which the business operates and the techniques required for business success. This demonstrates the strong business acumen of the employees, sound judgment and unwavering sense of work ethics. An employee should be aware of the organization's mission, vision, goals and objectives,

the sector to which it belongs, its competitors and the commercial priorities. It helps in moulding the mindset according to the situation and the requirements and therefore the service rendered is successful and effective and bears fruits.

**Analytical Skill:** It is the ability to make an assessment of the situation, make an analysis of the available information and make an interpretation or identification of the crucial factors that are essential and requisites for the growth and success of the organization. Analytical skill or thinking helps in solving problem and taking decision. It is the ability to recall the appropriate information or knowledge and using it effectively. Sound analytical skill helps in identifying the problem, generating an alternative and implementing the solution. It helps in taking stock of the strengths and weaknesses of the company which aids in being proactive. An employee with analytical skills is good at solving problems and this reduces the complexities that arise out of the situation thereby lessening the burden on the management, cost and time. We live in an age of information explosion and so it is the calling of an employee to quickly sort out the information and retrieve the most relevant and appropriate information. It is also the ability to envisage, be eloquent and have a comprehensive understanding of concepts and practices. Employers ardently seek employees with strong analytical skills is because it is the ability to evaluate a situation, find manifold perspectives, gather information and identify the key issues.

**Initiative/Self-motivation:** Taking initiatives are vital to solving problems and taking decisions because one can never ignore the pros and cons. To avoid consequences one has to think out of the box and be innovative, creative, critical and analytical to arrive at a smooth conclusion. With initiatives and self-motivation one can be successful in bringing about a change and betterment in all spheres of working which leads to the betterment of the individual, society and the nation at large. It means one has the willingness to work beyond one's capacity, expectations and limitations. Stretching one's area of work or expertise has always a great advantage for one can be proactive

and well prepared to solve the problem even before it rears its ugly head. It is the willingness to learn new things, to take the responsibility to implement new techniques and strategies and to monitor the progress. It makes one adaptive, accommodative and anticipating. Through anticipation the aftermath of a problem is minimized. Self-motivated employees need no supervisors and advice and set their own goals and objectives and drive themselves to achieve them within the set time. These people motivate the others thus bringing about greater profits and advantages for the organization.

**Integrity:** Only employees with integrity will be hired and retained. This attribute is valued more than talent, skills, academic qualifications and work experience. It is about maintaining a healthy relationship with the organization, colleagues and customers and having strong and uncompromising moral values. It is the most important essential for long term success, both in life and at work. Integrity is being true to oneself which is reflected in the sound relationship with others. You make an honest appraisal of your talents, skills and potentials and have the moral courage to accept your strengths, weaknesses and failures. It is also reflected in taking the responsibility of one's mistake, bravely facing the consequences and striving to rectify it. One should establish the loyalty that one feels for one's organization, colleagues and customers. It also means not spreading rumours and gossips. It is not being bitter, critical, judgmental and negative.

**Perseverance:** It is the inner strength, courage, confidence, ability and determination to remain strong, unshaken and unmoved in the face of crises. It is not only remaining strong, but going through the problem with grit and fortitude to come out unscathed and unchanged. It is to be persistent even in the midst of tough going. Persevering people can change challenges to opportunities, failures to successes and weaknesses. They refuse to accept defeat and are keen on getting things done irrespective of limitations and restraints. Nothing can deter people from their set goals and objectives. Persevering people have a long, successful and fruit

career as they never retreat, fight for what they believe in and are firm in their convictions and decisions. Perseverance serves to boost your morale, that of your colleagues and your image because people see that you care about your job, your work and your colleagues.

**Numeracy:** It is the knowledge and skills that help in managing and responding to mathematical demands of different situations. Regardless of profession and field, numeracy skill is much sought after; even a basic understanding will help. To maximize their opportunities, to progress in their current job and to make a meaningful and purposeful contribution to society, numeracy skill is required. Lack of numeracy skill leads to many complications and results in failure, embarrassment and self-management. This in turn leads to loss of confidence and self-esteem. People with no or inadequate numeracy skills are less likely to be employed because the growing development and dependence on technology has made numeracy skill the most crucial essential of one's work. These people poor in financial management and so lose their money and fail to get best deals for they are paid low and have less promotion prospects.

**Positive Thinking:** It is the most important key to success and reputation. It is the attitude that a person has of himself or herself and how he or she thinks in relation to the job. It makes the work more enjoyable and less stressful, more meaningful and less overwhelming, and more purposeful and less directionless. A positive attitude can make a world of difference at the workplace and it infuses positivity, enthusiasm and energy. It is reflected in the feelings and emotions that one displays for the change is from within and hence powerful and all encompassing. Your productivity in your work and interaction with other will take on a new dimension and perception. It is not to say that one's environment is always filled with positivity because negativity is thrown at a person from all possible directions. But even in the midst of negativity, one has the right attitude to persevere. Negativity at a workplace can further be compounded by gossip, bitterness, lack of team spirit, envy, less production, financial loss, unstable management and wavering colleagues. In addition to these hurdles one has to counterfeited the negative

thoughts generated naturally by one's mind. But one has to hold steadfast to one's positivity to bring about the desired change. The mind has to be trained and disciplined to see the bright side and this will add value to everything one touches and continue to be successful in the ever growing negative world. Positive thinking is a mental activity and bears constructive and worthy results.

There are certain things beyond one's control but positive thinking is the way of looking at things from a different perspective, one that concentrates on solutions rather than problems, on new beginnings rather than ends and on fruits rather than on labour. The secret of positive thinking is that it knows that everything in this world is of transient nature.

**Time Management:** Time management is the skill or competency to calculate, organize and manage time effectually and competently while carrying out a task, project or a goal. It is the ability to plan, organize, allocate, delegate, monitor, analyze and schedule the available time for maximum production and output. It is the consistent and unwavering use of time to accomplish the task at hand, short term goals and long term goals. Time management is both, a skill and an attitude. It is a skill because one has to know and use time management strategies or techniques appropriately and effectively and it is an attitude because one has to be self-motivated to implement the strategies. In this world of competition, constant change and uncertainty, everything is seen in relation to money and time is money for the effective use of time brings in more profit. An employee with good time management knows the value of his work and time and hence works hard thereby having a good say in the contribution towards the organization's performance and growth.

### Significance of Trade Shows in Management Education

A trade show is an event at which students get an opportunity to showcase their product, and other students and people from community walk through the event to get more information about the product and buying it for a reduced price.

Trade shows have been part of business world for centuries in one form or another. The tradition began when vendors first started collecting and selling their artifacts in public places. People would come and either purchase with money or barter with other items. This evolved into the modern trade shows we see and experience today.

Trade fairs can be a significant part of their learning of business management. It has a built-in customer base since the people coming to the show are obviously interested in those types of products, and investors also come with the intention of seeking new business opportunities. E.g. Green House Project.

The purpose is to provide students with an opportunity to create and face actual market –like situation where live negotiations take place. Large number of visitors bargain and ask questions which makes them explore and reinforce their classroom learning.

In the initial phase, students have to link with vendors and /or service providers and convince them to display their products in the fair. In doing so, they have to arrive at consensus where both parties are at benefit. This helps them develop good PR skills. Lot of planning, gathering and organizing skills are required at this stage.

Once they decide the product, they need to decide how to display particular item in the exhibition. Displaying a product in a particular way has an important role in product selling strategies. Design elements such as lighting, color, material, and art compositions are crucial elements attracting

customer groups and stimulating their buying decisions. Making chart papers and hoardings to educate customers, and live demonstrations of some product shows their competence in the subject.

When actual show begins and customers (other students and people from the community) start arriving, their actual skill is tested. Explaining the process, describing the product, answering the questions by customers, negotiating for the price etc. help them being real sales persons. Their skills like marketing, salesmanship, communication and negotiating and customer relationship also gets develop in a real life situations.

Their knowledge about finance management and account keeping also get real life exposure when they raise fund, find sponsors and issue bills.

Trade show is a public event. A student is in a direct interaction with suppliers and customers. They have to pass through every business function in order to be part of this show. Good salesmanship, sensing right market for their products and pricing knack make their show more successful than their classmates.

Trade shows provide students with an opportunity

- To engage in an in-depth, collaborative inquiry. ■
- To demonstrate independence and responsibility for their own learning. ■
- To explore multiple perspectives. ■
- To synthesize and apply their learning in real life situation. ■
- To demonstrate how students can take action as a result of their learning. ■
- To gather students, teachers, parents and other members of the community in a collaborative experience that incorporates the essential elements of collaborative learning. ■

Trade shows have proved to be an authentic process for evaluating students' understanding of

the subject they learn in the classroom. Therefore, it must comprise of regular and carefully planning students side and at institute level as well.

**By:**

**Dr. Nikhil Zaveri**

**Director & Principal,**

**SEMCOM.**

## **SEMCOM updates**

### **Green Business Fair and Smart Eye Photography Competition:**

SEMCOM organized Green Business Fair and Smart Eye Photography Competition on 14th and 15th February 2013. The event started on 14th February, with the theme “Green Product for Green Life”. The inaugural ceremony was attended with great enthusiasm and expectation. It indeed proved to be a great learning experience. Dr. Nikhil Zaveri, Principal and Director, SEMCOM, welcomed the guests and introduced them to the audience. The Chief Guest of the inaugural function was Mr. M. V. Pargi, IAS, Collector, Kheda District accompanied by R.D.C (Kheda) Mr. Langa who visited all the 30 Teams representing 50 different Companies. The inaugural session was followed by sale on both the days on a grand scale where almost 2500 odd visitors participated in the exhibition from diversified backgrounds. There were visitors from schools as far as Dahod, Bharuch, Surat and many such places within Gujarat. Even students from different schools in Anand and Vallabh Vidyanagar poured in numbers. Executives from the industries and visitors from various colleges took keen interest in the projects. It drove home the idea about the need to use green products that are not only environment friendly but also contribute to sustainable development. 50 teams represented organizations like TIANODE (Chennai) DHAROHAR (Dahod), ACCUCCEL (Sanand), FLYMAX EXIM and BIOTIQUE from Baroda, KUTCH KUTIR UDYOG (Bhuj), MITTICOOL (Rajkot), BIODIESEL from Anand Agricultural University, BANANA FIBRE (Navsari Agricultural University) FERN GIR RESORT (Junagadh) to name a few that have adopted Green Practices or taken Green Initiatives by conserving resources, using green technology, selling green products or providing green consultancy and services.

In order to enhance creativity in the field of photography, our Director and Principal, Dr. Nikhil Zaveri initiated a novel competition -Smart-eye Photography Contest since 2011. The competition was launched on 12th July 2012 which was

## ISSN NO- 2277-2510

followed by enormous response with a registration 107 teams. Students were asked to select 'environment' as the theme for the contest. Finally

31 teams were selected for the competition. The exhibition was open for two days on 14th and 15th February 2013. The photographs were evaluated by Mr. Sunil Adesara, a freelancer photographer, Mr. Kanu Patel, Principal, CVM College of Fine Arts and an eminent artist. The event was coordinated by Dr. Shuvasri Das, Dr. Vigna Oza, Ms. Hiral Patel and Mr. Vikas Singh under the guidance of Dr.

Nikhil Zaveri who says "Environment and Business cannot be learnt in the discussion; students must go on the field".

## Book Review:

### E-Finance: The Future is Here (Second Edition)

The technological advances in the recent past have changed the global financial services industry. The growth of the Internet technologies is changing the structure of the financial services and is accelerating the developments by reducing the costs, increasing the quality and speed and widening access to financial services. As the information age matures, the financial services industry is finding the need to move to an advisory relationship with the customer, powered by technology. The book "E-Finance: The Future is Here" features on the application of the Internet and other technologies in the financial service industry.

The author of the book "E-Finance: The Future is Here" is V. C. Joshi, a financial services consultant based in Pune. The first edition of the book was published in 2004. At that time few banks were the core banking solutions provider and offering internet banking services in India and now almost all banks are enabled with core banking solutions and providing internet banking facilities. The second edition of this book was published in 2010 by SAGE Publications Pvt. Ltd as a part of its Response Books – Business Books series with an ISBN: 978-81-321-0245-8 at Rs. 350 with a total number of pages as 189.

The second edition of E-Finance contains Indian Developments within the Global Context, E-Finance Delivery Channels, Impact on the Bottom Line, Websites, Products and Services in India, E-Banking and E-Insurance, E-trading, Click and Brick Marketing, General Aspects of Risk Management, Risk Management for E-Banking and E-Insurance, Cyber Crimes, Network Security, Cyber laws, Regulation of E-finance Institutions, and the Internet Potential.

The book largely focuses on system improvements, marketing, customer services, security and legal

remedies, amongst others. While issues like web design are briefly touched upon, the emphasis is on the integration of this new channel with the established 'brick-click' model. The book surveys the spread of internet facilities and the use of mobile phones with internet connectivity; it takes a look at the economic basis for important decisions like pricing, price discrimination and marketing services as well as changes in routine administration, particularly back office functioning. The book also examines the working of e-banking, e-insurance and e-broking. Developments in alternate systems of trading in areas like treasuries and foreign exchange are discussed. Security aspects and legal means available for dealing with crimes are critically examined. Marketing of these services, a comparatively neglected area, along with recent experiences and efforts of some banks are looked at. Finally, the work examines the difficult issues relating to regulation.

The first chapter begins with a review of the global growth in internet usage. It highlights the immense possibilities for Indian banks to seek and expand their customer base. The second chapter begins with issues like return on investments in IT, active senior management support and involvement to see positive effect on bottom line. The author has elaborated well on cost saving possibilities due to the use of IT and more efficient interaction and how enhanced competition can be translated into cost savings. The third chapter on websites describes various access devices, portals, and the online value chain in detail. It also briefly touches on some common difficulties experienced at the implementation stage of e-banking and online trading. It also mentions the merits and demerits of the option of outsourcing versus doing it yourself when it comes to investment in IT. The fourth chapter on products and services in India defines the term e-finance and e-money. The term e-finance refers to the provisioning of banking online, electronic trading, delivery of financial products such as insurance, mortgages and electronic money and communication of financial information and analysis over the internet via other public networks. Financial markets now have electronic clearing and settlement-transfer of title. Electronic Trading Systems provide services like electronic order routing, automated trade execution and post-

trade information. It describes various products on e-platform like factoring and leasing, e-trading in securities, equities and foreign exchange, how financial institutions can leverage on their role as payment facilitators for e-procurement for their corporate suppliers, the use of mobile devices for internet access and use in e-money etc. The fifth and sixth chapter on e-banking and e-insurance and e-trading describes comprehensively starting from planning to implementation stage and risk factors in the whole process. The issues of transparency, electronic fund collection, e-trading in fixed-income securities, foreign exchange trading are well explained. The chapter on click and brick marketing emphatically focuses on competing on prices and products would not be enough but customer service, reliability and trust is equally important. Chapters eight and nine on general aspects of risk management and risk management for e-banking and e-insurance discuss all possible vulnerabilities attached with using technology in financial matters. The need for being proactive and use of due diligence has been emphasized by the author. The tenth chapter on cybercrimes discusses at length possible criminal act and its potential effect on the organization. The eleventh chapter on network security incorporate possible security failures, control devices required, best practices for the organization's network security etc. The regulatory aspects are covered in depth in chapters twelve and thirteen respectively on cyber laws and regulation of e-finance institutions. The last chapter is on internet potential attempt at analyzing the economic values created by the internet and how to use it appropriately.

Inclusion of some specific topics like cash and treasury management, financial aggregation, mortgages, personal finance, trade finance etc. would have added value to the book for the benefit of the discerned readers. It would have become more useful if some specific case studies on each of these areas would have been included, though it cites recent examples at many places. Use of technology in the area of micro financing is also untouched in the book.

In essence, the rich contents of the book on the subject concerned make it a wonderful reading. At the same time the span of coverage and depth of

**ISSN NO- 2277-2510**

matter add richness to the text. While world over the Financial Services Industry is faced with problems as never before, Indian banks (particularly public sector banks) have not suffered significantly and are quite secure. This is an opportunity to show the world that this business model can be used sensibly and with a social purpose. Indian banks can offer services at prices not possible elsewhere. As the author says, "The future is here! May financial institutions and all of us exploit it!"

**BY:**

**DR. KAMINI SHAH**

**ASSISTANT PROFESSOR,**

**SEMCOM**

**Article:**

## **Industry – University Linkage: Its Utility and Relevance**

### **Introduction**

University industry linkage is regarded as a major collaborative effort on a part of the two distinct entities, academia and industry that share their resources in an effective and efficient way for attaining mutually compatible goals of technological innovation, enhancing global competitiveness and performing an engine for economic growth. Various mechanisms of such relationship are effective in developed countries for fairly sometime. However, its practice is relatively novel in developing economics of the worlds. University - Industry linkage is of vital significance for the promotion of educational institutions, growth of vibrant industries and development of national economies. University - Industry linkages cover a range of diverse realities in both teaching and research, including student placement schemes, staff exchanges, consultancy services, continuing professional development, joint R&D, as well as small enterprise development and the creation of spinoff enterprises for the joint commercialization of R&D products.

#### Conceptual framework

Industry - An organization to carry commercial activities, which may be in the form of production, services or other with an aim to have profit.

University - A university is an institution of higher education and research, which grants academic degrees in a variety of subjects; with aim to produce trained man power.

#### Gaps between University and Industry

In the recent past, there has been recorded a phenomenal increase in cooperation between industry and university for its obvious productive outcomes. However, in lieu of its encouraging results, numerous factors hinder its full outgrowth. The inherent difference in the structure, culture, mission, policies, objectives, norms and values of

the two partners works against effective University - Industry linkages. Obviously, the university and industry are diametrically opposed in terms of diverse functions. There has nothing been found like each other. Both the distinct entities continue to follow very divergent pathways in terms of structure (problem-driven vs. disciplinary), time horizons (short vs. long), and goals/values (profit vs. knowledge dissemination). Differences between academia and industry, which are pointed out here:

- Structure
  - Culture
  - Product
  - Motivation
  - Working environment
  - Changing conditions
  - Objectives

#### Utility and Relevance

Industry - University linkages is regarded as one of the widely used interactive best practices, a powerful tool for creating friendly environment for technological innovations and enhancing global competitiveness ultimately promoting the interests of the firms and academia across the world. Intense global competition, shorter product life cycle, rising demand for technological innovation unpredictable economic conditions, and escalating cost of research provide firm grounds for the organization to promote collaboration with institutions of advanced learning. The utility of this linkage can be discussed as under;

Social benefits: Society benefits from university-industry research relationships through innovative products and technologies. Industry-sponsored university research is often developed into practical applications that benefit society. These applications include new improved medical devices, techniques, and therapies; efficient energy development; and innovative electronic technologies such as computers and DVD players. These are just a few examples of the social promise of university-industry research relationships.

University benefits: Interactions with industry are clearly thought out with attention paid to the benefits that will accrue to the university. Some universities seek industrial partnerships because of

the potential financial rewards of patents and licenses that result from the commercialization of academic research. This provides a means by which universities can decrease the governmental funding gap. Patents generated through industry-sponsored research are sometimes shared between companies and universities. The intent is that the university will use patent revenues to support activities that are not market oriented, such as the teaching mission of institutions.

Additionally, faculty benefit through the access to cutting-edge scientific equipment not always available in university labs. This equipment enables faculty to pursue additional lines of research that, ultimately, contribute to faculty productivity (such as additional external funds as well as increased publications). Both of these elements combine to enhance institutional prestige – an important component used by institutions to attract top students, establish their legitimacy, and acquire available public funds. Universities also enhance opportunities to find future employment for undergraduate and graduate students through university-industry connections.

Company benefits: University-industry collaborations can stimulate companies' internal research and development programs. University researchers help industrial scientists identify current research that might be useful for the design and development of innovative processes and potential products. This first look at cutting-edge research gives companies a competitive edge because it decreases the time it takes to move a potential product from the laboratory to the market, which strengthens international economic competition.

The association between universities and company sponsors also enhances a company's reputation. Oftentimes, university and industry researchers will coauthor refereed journal articles that describe research results. Joint publications are used as a public relations tool by companies to add to their prestige.

So far, the more abstract benefits companies realize from university-industry relationships have been described. However, the concrete benefits



are the ones that drive these collaborations. When a company becomes involved with academic researchers and "buys" access to new ideas, it builds trade secrets that could lead to new, potentially profitable patents. Furthermore, if university researchers develop a patent, the company that sponsored the research often gains the first right of refusal to license the product. Companies thus become industry leaders.

Universities provide inexpensive lab space in which to conduct industrial research. One area where this is critical is in the arena of clinical trials. Medical companies use university partnerships to conduct clinical trials of drugs, devices, and emergent techniques. This is less costly for industry because university hospitals have access to large numbers of patients.

Finally, university-industry research relationships strengthen companies' research and development (R&D). Either through the generation of innovative products developed from current research or through a redirection of industrial development to more profitable lines, R&D is positively affected. University researchers also help industry scientists solve design and technical problems. Often, company employees learn new research techniques with their university partners.

#### Conclusion

Industry - University linkage has produced overwhelming results for the technologically advanced nations. Developing countries like India, if they want to overcome the problems of unemployment, economic degradation, and social disturbances should move forward on the road towards rapid industrialization and restructuring the institutions of higher education. Once these objectives have been achieved it would become extremely easy for the government to patronize Industry - University linkage to take firm roots in the society. The campus, in the first instance, must ensure that the graduates are skilled, competent and capable to meet the needs of business world. The graduates must be graded by high level of efficiency and ability to participate proficiently in R

& D of an applied nature and of direct relevance to the industries.

Very effective role of industry is required in the entire process by being more receptive to the students for internship. Frequent visits from both sides needs to be encouraged. Professionals from industry must be encouraged to deliver lectures in the universities. Representatives from industrial associations and chamber of commerce and industries must also be given membership of the various august academic bodies of the university. Pure academic orientation of the teachers coupled with high qualifications does not provide any favorable grounds for interaction between the two partners. From the above discussion, it has been derived that unless and until the space between academia and industry is bridged attaining of high standards in the working of both the university and industry and realization of the goals of national economic development would be next to impossible. If we sincerely realize that in the age of knowledge-based economy, the creation, diffusion and exploitation of new knowledge will smoothen the way for our economic, political and social development. Finally, it is our share liability to promote the culture of research in our institutes of advanced learning.

**BY:**

**MR. PRATIK SHAH**

**ASSISTANT PROFESSOR,**

**SEMCOM**

## Research Article:

### Information Security in e-Governance of India



#### What is Information security?

Information may be in electronic, printed, audible, visual, or memorized form. All types of data cannot be shared with others. Certain information can be shared with others and sometimes it must not be known to others without our knowledge. So we need to secure certain information.

Information security is the process of protecting information. It protects its availability, privacy and integrity. Access to stored information on computer databases has increased greatly. More companies store business and individual information on computer than ever before. Much of the information stored is highly confidential and not for public viewing.

Many businesses are solely based on information stored in computers. Personal staff details, client lists, salaries, bank account details, marketing and sales information may all be stored on a database. Without this information, it would often be very hard for a business to operate. Information security systems need to be implemented to protect this information.

Effective information security systems incorporate a range of policies, security products, technologies and procedures. Software applications which provide firewall information security and virus scanners are not enough on their own to protect information. A set of procedures and systems needs to be applied to effectively deter access to information.

There are people who make a living from hacking or breaking through information security systems. They use their technological skills to break into

computer systems and access private information. Firewalls, which are designed to prevent access to a computer's network, can be bypassed by a hacker with the right hardware. This could result in the loss of vital information, or a virus could be planted and erase all information. A computer hacker can gain access to a network if a firewall is shut down for only a minute.

One of the biggest potential threats to information security is the people who operate the computers. A workplace may have excellent information security systems in place, but security can be easily compromised. If a help desk worker gives out or resets passwords without verifying who the information is for, then anyone can easily gain access to the system. Computer operators should be made fully aware of the importance of security.

Simple security measures can be used by everyone to keep data secure. Changing passwords on your computer, and using combinations of letters and numbers, makes it harder for hackers to gain access. Also, do not keep a note of your password where it can be easily accessed. This is the same idea as not keeping you bank card and PIN number together. You would not want anyone to have access to the information or funds in your bank account, and it is the same with your computer. [1]

Information Management Requirements are for collection, storage, processing, Communication.



#### Principles of information security

##### 1. Confidentiality

Confidentiality is the protection of transmitted data from passive attacks. With respect to the content of a data transmission, several levels of protection can be identified. The broadest service protects all user data transmitted between two users over a period of time. For example, when a TCP connection is set up between two systems, this broad protection prevents the release of any user data transmitted over the TCP connection.

Narrower forms of this service can also be defined, including the protection of a single message or even specific fields within a message. These refinements are less useful than the broad approach and may even be more complex and expensive to implement. The other aspect of confidentiality is the protection of traffic flow from analysis. This requires that an attacker not be able to observe the source and destination, frequency, length, or other characteristics of the traffic on a communications facility.

## 2. Data Integrity

As with confidentiality, integrity can apply to a stream of messages, a single message, or selected fields within a message. Again, the most useful and straightforward approach is total stream protection.

A connection-oriented integrity service, one that deals with a stream of messages, assures that messages are received as sent, with no duplication, insertion, modification, reordering, or replays. The destruction of data is also covered under this service. Thus, the connection-oriented integrity service addresses both message stream modification and denial of service. On the other hand, a connectionless integrity service, one that deals with individual messages without regard to any larger context, generally provides protection against message modification only.

We can make a distinction between the service with and without recovery. Because the integrity service relates to active attacks, we are concerned with detection rather than prevention. If a violation of integrity is detected, then the service may simply report this violation, and some other portion of software or human intervention is required to recover from the violation. Alternatively, there are mechanisms available to recover from the loss of integrity of data, as we will review subsequently. The incorporation of automated recovery mechanisms is, in general, the more attractive alternative.

## 3. Authentication:

The authentication service is concerned with

assuring that a communication is authentic. In the case of a single message, such as a warning or alarm signal, the function of the authentication service is to assure the recipient that the message is from the source that it claims to be from. In the case of an ongoing interaction, such as the connection of a terminal to a host, two aspects are involved. First, at the time of connection initiation, the service assures that the two entities are authentic, that is, that each is the entity that it claims to be. Second, the service must assure that the connection is not interfered with in such a way that a third party can masquerade as one of the two legitimate parties for the purposes of unauthorized transmission or reception.

Two specific authentication services are defined in X.800:

**Peer entity authentication:** Provides for the corroboration of the identity of a peer entity in an association. It is provided for use at the establishment of, or at times during the data transfer phase of, a connection. It attempts to provide confidence that an entity is not performing either a masquerade or an unauthorized replay of a previous connection.

**Data origin authentication:** Provides for the corroboration of the source of a data unit. It does not provide protection against the duplication or modification of data units. This type of service supports applications like electronic mail where there are no prior interactions between the communicating entities. [5]

|   |   |
|---|---|
| <p><b>Authentication</b></p> <p>The assurance that the communicating entity is the one that it claims to be.</p> <p><b>Peer Entity Authentication :</b></p> <p>Used in association with a logical connection to provide confidence in the identity of the entities connected.</p> <p><b>Data Origin Authentication :</b></p> <p>In a connectionless transfer, provides assurance that the source of received data is as claimed.</p> <p><b>Data Confidentiality</b></p> <p>The protection of data from unauthorized disclosure.</p> <p><b>Connection Confidentiality :</b></p> <p>The protection of all user data on a connection.</p> <p><b>Connectionless Confidentiality:</b></p> <p>The protection of all user data in a single data block.</p> <p><b>Selective-field Confidentiality:</b></p> <p>The confidentiality of selected fields within the user data on a connection or in a single data block.</p> <p><b>Traffic Flow confidentiality:</b></p> <p>The protection of the information that might be derived from observation of traffic flow.</p> | <p><b>Data Integrity</b></p> <p>The assurance that data received are exactly sent by an authorized entity (i.e., contains no modification, insertion, deletion, or replay).</p> <p><b>Connection Integrity with Recovery:</b></p> <p>Provides for the integrity of all user data on a connection and detects any modification, insertion, deletion, or replay of any data within an entire data sequence, with recovery attempted.</p> <p><b>Connection Integrity without Recovery:</b></p> <p>As above, but provides only detection without recovery.</p> <p><b>Selective-Field Connection Integrity :</b></p> <p>Provides for the integrity of selected fields within the user data of a data block transferred over a connection and takes the form of determination of whether the selected fields have been modified, inserted, deleted, or replayed.</p> <p><b>Connectionless Integrity:</b></p> <p>Provides for the integrity of a single connectionless data block and may take the form of detection of data modification. Additionally, limited form of replay detection may be provided.</p> |
|---|---|



- ■ Goals for defining Information Security standard
- ■ ■ Realistic unified security framework ■
- ■ Targeting all components of IT infrastructure
- ■ ■ Internal users could be threats ■
- ■ No compromise on Network Performance ■
- ■ Addressing the multi-level complexities in network threats ■
- ■ Should promote process by considering technology as well as human factors that impact security of the network ■
- ■ Should provide Secure Converged Communication
- ■ ■ Should be Useful for legacy applications [10] ■



## Standards for Information Security Management

ISO/IEC 27002 part of a growing family of ISO/IEC ISMS standards, the 'ISO/IEC 27000 series' is an information security standard published by the International Organization for Standardization (ISO) and the International Electro Technical Commission (IEC) as ISO/IEC 17799:2005 and subsequently renumbered ISO/IEC 27002:2005 in July 2007, bringing it into line with the other ISO/IEC 27000-series standards. It is entitled Information technology - Security techniques - Code of practice for information security management. The current standard is a revision of the version first published by ISO/IEC in 2000, which was a word-for-word copy of the British Standard (BS) 7799-1:1999.

ISO/IEC 27002 provides best practice recommendations on information security management for use by those who are responsible for initiating, implementing or maintaining Information Security Management Systems (ISMS). Information security is defined within the standard in the context of the C-I-A triad:

The preservation of confidentiality (ensuring that information is accessible only to those authorized to have access), integrity (safeguarding the accuracy and completeness of information and processing methods) and availability (ensuring that authorized users have access to information and associated assets when required).

### Outline of the Standard

After the introductory sections, the standard contains the following twelve main sections:

Risk Assessment

Security policy - management direction

Organization of information security - governance of information security

Asset management - inventory and classification of information assets

Human resources security - security aspects for employees joining, moving and leaving an

organization

Physical and environmental security - protection of the computer facilities

Communications and operations management - management of technical security controls in systems and networks

Access control - restriction of access rights to networks, systems, applications, functions and data

Information systems acquisition, development and maintenance - building security into applications

Information security incident management - anticipating and responding appropriately to information security breaches

Business continuity management - protecting, maintaining and recovering business-critical processes and systems

Compliance - ensuring conformance with information security policies, standards, laws and regulations

### National Equivalent Standards

ISO/IEC 27002 has directly equivalent national standards in countries such as Australia and New Zealand (AS/NZS ISO/IEC 17799:2006), the Netherlands (NEN-ISO/IEC 17799:2002 nl, 2005 version in translation), Denmark (DS484:2005), Sweden (SS 627799), Japan (JIS Q 27002), UNE 71501 (Spain), the United Kingdom (BS ISO/IEC 27002:2005), Uruguay (UNIT/ISO 17799:2005) and Estonia (EVS-ISO/IEC 17799:2003, 2005 version in translation). Translation and local publication often results in several months' delay after the main ISO/IEC standard is revised and released but the national standard bodies go to great lengths to ensure that the translated content accurately and completely reflects ISO/IEC 27002. [6]

### E-Governance

E-Governance: Information and Communication Technology (ICT) that empowers the Government, its citizens including the Government employees, weaker sections, women, people living in far flung

## ISSN NO- 2277-2510

and difficult areas and the business houses to transact businesses with government and its agencies online 24/7 “\*4+

Securing E-Governance, digitally

As India adopts E-Governance with a vengeance, the need for digital security measures to protect vital data has come to the fore, says Faiz Askari.

In catering to the next level of security solutions for an IT environment, the industry has recognized a relatively more secure way – digital security.

Digital security in India

"If we look at the E-Government projects and the networks that are being rolled out, digital security seems to be paramount" - Nagendra Venkaswamy, Managing Director, India & SAARC, Juniper Networks.

However, in the enterprise space digital security is required for access of information by employees, partners and customers. Depending on the nature of information that needs to be shared, authentication is provided to enter the network and gain access.

Tanmoy Chakrabarty, Vice-president and Head, Global Government Industry Group, TCS explains, "The importance is high among industry and government, but the awareness is low. An understanding of the digital security technology and the need for its implementation is required for a safer and more secure IT environment in the country. Digital security solutions fit into the security requirements of IT projects of the government. Securing public data and ensuring security of the government Web sites are some applications where digital security solutions have been proven".

Patrik Runald, Senior Security Specialist, F-Secure Security Response Lab says, "It's moving along quite well, but in India where broadband penetration is growing at a rapid pace, it's essential that the users are continuously reminded about security. The 'bad guys' on the Internet are always looking for new victims to send their malicious

Nagendra Venkaswamy, Managing Director, India & SAARC, Juniper Networks says, "If we look at the E-Governance projects and the networks that are being rolled out for these, digital security seems to be paramount. In an E-Governance project, a substantial amount of documentation is being done like maintenance of land records, police records and so on. Each department functions independently and has its own set of transactions to undertake. Hence having security measures in each department is critical so that only authorized people get into the network and access the information."

code and indulge in phishing. As users who have recently gone online are not as likely to be security-aware as their more experienced counterparts, they're more vulnerable".

According to Frost and Sullivan, digital security spend in India has been slow but steadily growing at 3.4 percent YOY. In FY 2005, overall digital security market was around \$4.5 million. It is expected to grow at a faster pace in the coming years because of mandates from government organizations such as Director General of Foreign Trade (DGFT), Customs and Central Excise.

Dr. T. R. Madan Mohan, Director, ICT Practice, Frost and Sullivan informs, "With increased adoption of BS7799, CoBiT, ISO 17799 certification processes, security is moving beyond firewalls and anti-virus to digital content. Several companies have invested in digital certificates for safe messaging, workflow documentation, certificate authentication (such as contracts, educational certificates, credit rating), vendor orders, and employee certificates (experience certificates and so on)".

"E-Governance is about improving service to citizens and making the system more responsive" – Dr. T. R. Madan Mohan, Director, ICT Practice , Frost and Sullivan [7]

The importance of security in E-Governance

With the Information Technology (IT) Act, 2000 come into effect since October 18, 2000;

transactions on the Internet have got legal validity in India. This allows users to pay their bills for utilities on the Web, at least on paper.

Change management is a key focus area state governments will be looking at closely, as it goes beyond investments in hardware and networking. Clarity in their mission will help keep factors like revenue generation and ROI at the top of their implementation list, away from projects with limited or ornamental value. Some revenue generation areas that the government should be focusing on are: issuance of licenses, government records and filing of returns online. However, this does not mean that state governments should not focus on low profit margin projects. The future intangible benefits should be another consideration, resulting in a broader benefit for the citizen.

Besides this, there is also a need to generate demand for the e-governance services being provided. Presently, there is not much demand for them, as most e-governance projects are still not utilitarian in nature. The government not only needs to generate more demand but also identify and target those potential areas where there is need for e-governance services.

The important factor that state governments should focus on before implementing any e-governance project is the legal aspect. The service that the government provides to citizens in the online environment must be legal in the eyes of the law. "By and large e-governance projects have not taken pains to ensure compliance with law. The IT Act 2000 has legalized the concept of e-governance but if this output is challenged in a court of law there are chances some issues would be held invalid", says Pavan Duggal, advocate with the Supreme Court of India, a cyber-law consultant and president, CYBERLAWS.NET.

The government also needs to focus on the critical issues of information security. It needs to ensure that e-governance services should be reasonably secure from hacking and other cybercrimes and the said services must be capable of ensuring information security of its contents and systems.

[2]

Releasing the report on Information Security, Dr. APJ Abdul Kalam extolled the importance of Information Security especially when India is aspiring to be a Knowledge Superpower. Dr. Kalam said, 'Information Security is not only an enabler of e-commerce and other electronic transactions, but also opens up an altogether new market for our industries to make inroads into'.

Speaking at the seminar, Mr. Arun Kumar, Chairman, NASSCOM said, 'The domestic market for IT security and business continuity planning offers a tremendous opportunity for Indian companies, particularly following the geo-political incidents over the last few months which have raised concerns about security of critical government and industry data. It is important that the government and private sector come together and develop indigenous solutions to protect the vast amount of government and industry data that resides in public networks like the Internet'.

Mr. Kiran Karnik, President, NASSCOM said, 'There is a growing concern about Information Security amongst companies today. This is primarily driven by the fact that new applications and faster connections have spurred the Internet to become an important medium for communication, information dissemination and commerce, and this makes it essential to safeguard critical business information from security breaches and virus attacks'. \*3+

Today there is increased significance for companies to adopt Information Security initiatives at the planning stage itself and consider technologies that provide companies the most effective security whether in terms of cost, service or reliability, in the context of their overall business strategy. Issues related to regulation and policies were also addressed at the seminar and government presented its agenda on Information Security.

#### Initiatives of E-Governance in Information Security

One of the key initiatives announced at the seminar by the government was the setting up of a Society for Electronic Transactions and Security (SETS). The eleven member Board of Directors of the society would comprise four members from the

Industry, two from the government, two from the academia and industrial R&D laboratories and two individuals, and an Executive Director of the Society who shall be the Secretary to the Board.

Dr. R Chidambaram, Principal, Scientific Adviser to Government of India and DAE-Homi Bhabha Atomic Research Center, soon after launching the SETS, traced the events that led to the creation of SETS. SETS would play a pioneering role in proactively addressing information security related issues and finding solutions to them. SETS would contribute, in a major way, in empowering the nation through securing its information wealth. This would be made possible through providing products and systems that can protect the networked infrastructure and ensure information transactions, said Dr. Chidambaram.

Speaking on the initiative, Dr. M. S. Vijayraghavan, Advisor, Office of Principal Scientific Advisor to Government of India, said, 'The primary objective of the Society for Electronic Transactions and Security would be to suggest an approach to information security, identify and develop specific technologies, systems and products to address issues of protection, surveillance, monitoring and certification'.

Highlights of the Governments agenda include:

Enabling establishment of an infrastructure that is capable of recognizing and countering threats to information assets

Disseminating security awareness through appropriate means, such as training programs, publishing a list of dos' and don'ts

Developing IT security products

Promoting a culture of security consciousness

Creating a mechanism for monitoring and upgrading the adherence to sound security practices

Identifying legal obstacles to the creation of wealth

in the form of information assets while maintaining security

Mr. Karnik further added, 'The seminar aims to focus on identifying some of the key security issues and key imperatives that Indian companies must address in terms IT security. This would mean identifying ideal technology tools based on individual business needs, devising disaster recovery plans and undertaking training for the employees to ensure security measures are implemented to protect their data'.

Amongst the initiatives which Nasscom intends to take further to this seminar, are:

Facilitate some case studies on how business continuity plans and security measures are being exercised by corporate and have played a role in crisis management.

Highlight India's capability in disaster management and business continuity plans amongst international audiences in addition to the other India advantages.

Providing recommendations to the Government on various legal and policy aspects of Information Security in consultation with the industry.

Spreading awareness of the relevance of Information Security with various State governments in their e-governance initiatives. [3]

Security and governance

Venkaswamy of Juniper says, "With the government finally adopting E-Governance, security has become a key issue that needs to be addressed. Like any other project, an E-Governance project also runs on a network, but the major difference is that in an E-Governance project considerable amount of critical information could be involved. Hence there is the need for securing such information. Technologies like PKIs (Public Key Infrastructure) and digital signatures are being adopted".

Chakrabarty of TCS says, "The digital security solution is well known for its adaptability and acceptability in E-Governance projects worldwide. But in the Indian E-Governance scenario, the security aspects are not being taken as seriously. They are rather neglected. The decision-makers in the government prefer to compromise when it comes to high-end technology implementation. I think the officials themselves should take the initiative to understand the technology, examine its usability in their domain and implement it. Looking at the way E-Governance is moving in India, digital security has to be a critical factor".

Ronald of F Secure concurs that digital security is catching on in the government sector. He says, "It's crucial for all aspects - from securing transactions to building trust. The users should have trust in the security systems, if not they will never use the e-Gov services".

Mohan of Frost & Sullivan states, "E-Governance is about improving service to citizens and making the system more responsive. The government is the largest dispenser of certificates such as birth and death registration, motor vehicle license, land records, and BPL cards all of which have legal and legislative nuances".

Mohan explains, "Several state governments are discovering the value of digitization of certification as that makes it easy to ship out and manage. Consider the E-Visa certificates which are being issued by several governments across the world in place of physical visa. Digitization cuts down the lead-time (the average time reduced is six days), improves citizen service and enables better management of international visitors".

He adds, "The government is aware of misuse of these records for personal gains and have adopted several initiatives such as deploying digital security, which is the best option available for securing this data".

S. Angiah, Business Development Manager, Adobe Systems India, elaborates, "India is trying to catch up with the developed nations with regard to growth but there are issues like corruption and lack of infrastructure, which are hampering its plans. E-

Governance could play an important role in getting rid of these problems. From October 18, 2000, transactions on the Internet have got legal validity in India, as the Information Technology Act 2000, has come into effect. This has ushered the country in an era of digital signatures. It allows people, at least on paper to conduct business with the government remotely, no matter where they are".

Angiah adds, "Digital security is critical in E-Governance to safeguard the confidentiality of transactions and information on the network. Government documents and other important material have to be protected from unauthorized users in case of E-Governance projects. Hence, security is critical for their successful implementation".

Some of the key areas where digital security applications are most required are defense, stock exchange, Ministry of Finance, Income Tax, administration (police etc), and land records.

The emerging technologies for E-Governance projects include PKI, digital signatures, biometrics and Secure Sockets Layer (SSL).

Ronald of F-Secure says, "It is true that digital signatures will be dominating security infrastructure but the technology needs proper implementation. The trend is catching up in India.

Digital signatures can be useful as long as they're based on authentication, preferably through a smart card or some other physical device combined with a personal pin".

Mohan of Frost & Sullivan believes, "An FIR is a key document in the judicial enquiry process and so are the land records. Technologies such as SSL, PKI, biometric maps are crucial for the success of E-Governance projects".

Chakrabarty of TCS says, "PKIs and digital signatures are emerging trends. The MCA 21 (a project by the Ministry of Company Affairs) project is the first example in implementation of digital signatures at a higher level".

Digital certification

In a span of about a year since the first digital

certificate was launched, digital certificates gradually made their way into every possible business scenario. India's leading software services firm Infosys uses digital certificates from SafeScript to sign and encrypt the top management's e-mail.

Angiah of Adobe adds, "Even the government, usually reticent about adopting new technologies is jumping on the bandwagon by adopting digital certificates. For instance, the DGFT recently took a revolutionary step by mandating that all DGFT transactions would have digital signatures. As all EXIM notifications and public notices would be transmitted with digital signatures, the exporting community which applies for import/export licenses will now be able to interact directly with DGFT on a secure electronic platform. That will facilitate paperless verification and processing. Similarly, educational institutions like the DoEACC (Department of Education for Accredited Computer Courses) and IGNOU (Indira Gandhi National Open University) are using digital signatures for students to register online".

He informs, "When digital certificates were first launched few industry analysts were optimistic about adoption, as India traditionally has been slow in adopting new technologies. But the above instances of adoption in diverse sectors prove that digital certificates are slowly but surely picking up in India".

Apart from above, other security-related technologies are biometric recognition, content scrambling and steganography (digital watermarking).

#### Implementation

Mohan of Frost & Sullivan says, "Digital security products are required wherever 'authenticity,' 'validity,' and 'legal rights' of digital content have to be protected from repudiation. All digital content (applications) that need protection from tampering, vandalism, decay and accident need digital security".

"The role of digital security is vital in every

application which collects or stores data interacts with an outsider, carries some confidential information and other applications. The best example of having most of such qualities and requirements are various E-Governance projects. Digital security can have a competitive edge when it comes to such requirements", adds Chakrabarty of TCS.

Ronald of F Secure says, "Security is needed everywhere, especially in applications or solutions that involve transactions that are online such as banking, shopping, gambling and gaming. All these services/applications handle money transactions whether it is through transferring money through the online bank or buying more credits on the online gaming site. Either way, they're interesting targets for criminals. It may be either through phishing scams, trying to fool the users to give away financial and personal information or it may be through Distributed Denial of Service attacks against the online site itself in a blackmail attempt. Either way, online transactions and their users are at a higher risk of getting targeted by digital attacks".

#### Future path

For today's enterprises and government organizations, security is not about restricting access to business critical resources and applications. Strategic value is achieved by addressing some of the critical challenges like improving competitiveness, reducing operational risks and allowing ubiquitous access to various services without compromising on security or performance.

"The future for digital certificates looks bright because of mandates from government bodies such as customs. In fact, SafeScript, a Satyam subsidiary, witnessed significant increase in its revenue because of DGFT mandate on certificates. Advanced technologies such as biometric watermarking is mostly in an experimental stage in India; mass deployments are only expected to happen in 2008", says Mohan of Frost & Sullivan.

He adds, "Traditionally security was viewed as protecting critical assets and resources from the outside world. This is no longer the case. Networks are no longer segmented on the basis of trust. You have to view this as a single untrusted network and then deploy appropriate checks and controls based on what resource/application is being accessed, when, from where and by whom. With the increasing adoption of the Internet for business use, connectivity is available anywhere. The challenge is to use this medium securely and allow access to all business users including vendors, suppliers and business partners".

Also, today, organizations have to follow stringent statutory requirements and network security is important to meet these guidelines.

Ronald of F Secure says, "India is definitely one of the key targets for online criminals, digital security is a key for the growth of broadband usage. If not, the trust in Internet among the new users will fade and they may even avoid getting online at all. All ISPs and mobile operators are aware of the security problems though and are taking measures to make it better".

Chakrabarty concludes, "State governments are in fact getting aggressive towards implementing digital signatures and other digital security applications". \*7+

#### Ongoing E-Governance initiatives

Many e-governance initiatives in the country have been spawned by enthusiastic bureaucrats, who have sought to take IT to people for delivering better governance. One such experiment comes from Hamirpur, Himachal Pradesh. The effort here has been spearheaded by Anuradha Thakur, who used to be Deputy Commissioner of Hamirpur. The services offered include information about vacancies, tenders, market rates, matrimonial services and village e-mail. People can also file classified complaints. The Lok Mitra Intranet set up at the district headquarters consists of two Pentium-III-based servers (under Windows NT), with 4 Pentium-III-based client systems and a router, set up in a LAN with a hub in a separate room at the Deputy Commissioner's office at

Hamirpur. A total of 25 panchayats have been identified for setting up citizen information centers (CIC). The project will eventually be extended to cover all the districts of Himachal Pradesh.

Lok Mitra was set up with an investment of Rs. 40 lakhs, which was funded by NABARD. The project offers local youth an opportunity to run an enterprise. Local youth sign an agreement with the district Lok Mitra society and pay a security amount.

All services are provided at a rate that is fixed by Lok Mitra society, which is collected by the youth manning the center from users. Other than this, the entrepreneur also uses the computer provided for different services such as typing Internet browsing.

The Madhya Pradesh government is doing some key work in the area of e-governance. The Gyandoot project in MP was initiated in January 2000 by members of the Indian Administrative Services in consultation with various gram panchayats in Dhar district. Under the project, a low cost, self-sustainable, and community-owned rural Intranet system (Soochnalay) has been installed. It caters to the specific needs of village communities in the district. Thirty-five centers have been established since January 2000 and are managed by rural youth selected and trained from amongst the unemployed educated youth of the village. Just like the Hamirpur model, the youth in the Dhar experiment also run the Soochanalays as entrepreneurs and charge for the services that include agricultural information, market information, health, education, women's issues and applications for services delivered by the district administration related to land ownership, affirmative action and poverty alleviation. Kiosks are connected to the Intranet through dial-up lines. The dial-up lines being currently used are to be replaced by wireless connections using CorDECT technology. The Soochanalays have been equipped with Pentium multimedia color computers along with dot matrix printers. The user interface is menu-based with information presented in the local Hindi language. The features of the Gyandoot software are continuously being updated. The project has now been replicated in 20 districts.

Replication of Gyandoot-type service for urban areas has begun with municipal bodies in Indore and Bhopal introducing the same.

Headstart, another grassroots initiative in MP, is a programme for computer-enabled education in rural elementary schools to improve the quality of learning. R. Gopalakrishnan, Secretary to the Chief Minister and Mission Coordinator of the programme says, "Headstart is not merely a programme for computer literacy but uses computers to build multimedia rich lessons to the push frontiers of learning. It supplements the teacher and does not supplant her". Started with

648 schools and now with 2,070 more schools added in June 2003, it is India's largest programme for computer-enabled learning at the middle school level. It seeks to bridge the digital divide and takes computer-based learning to rural schools. Headstart produces its own educational software. Lessons are based on curriculum mapping and identification of "hard spots" of learning. Teachers are trained to handle the software and over 11,000 teachers have been trained so far. Hardware consists of three computers and a printer per Headstart unit. Headstart has gone in for using open source software in the second phase of 2,070 schools, the first major user of the OSS".

Other e-governance works in MP include computerization of land records; computerization of commercial taxes for VAT; computerization of transport (issuance of driving licenses and motor vehicles on smart card is being carried out); and computerization of treasuries. Web sites have also been created for various departments/agencies of the government.

Giving his insight into the current e-governance scenario in India and about the promises that the future holds, Gopalakrishnan says, "The key point is that it (e-governance) is now a play in the margins". But we only have demos and showcases that have not gone to scale. There is no comprehensive ICT for development framework in policy; no involvement of users at GOI level. The entire effort is driven by the IT Ministry whose

competence is telecom. Without cheap computers, broadband connectivity and Open Source Software how can India reach ICT benefits to people? Tremendous opportunities exist in potential, but there is no comprehensive policy framework to make it happen".

Located in the eastern part of Gujarat, Panchmahals is a backward district with a significant tribal populace. With eleven talukas, six towns and 1212 villages, the district has its headquarters at Godhra. The total population of the district as per the 2001 census is 20.24 lakhs. With the basic goals of Transparency and Right to Information, it was proposed to empanel STD/PCO (Subscriber Trunk Dialing/ Public Call Office) booths having basic computer facilities located in different villages /towns of the district to function as centers for dissemination of information, forms and services (also known as Mahiti Shakti Kendras). The Collectorate of Godhra headed by Jayanthi Ravi, IAS, held discussions with the Concept Centre for Electronic Governance (CEEG) of the Indian Institute of Management, Ahmedabad (IIM-A) in October 2000 to develop a 'proof of concept' portal for enabling Citizen to Government

(C-G) and Government to Citizen (G-C) transactions using information technology as a medium. On October 4, 2001, the proof of concept project was launched in 14 STD/PCOs of the district.

Down south, the state of Andhra Pradesh accounts for a sizable proportion of e-governance initiatives in India. Though most of the projects are urban centric, with every conceivable acronym decorating the state's e-governance achievements, there is now increasingly a trend of introducing e-governance initiatives in rural Andhra.

An Internet portal providing these services has been developed. Static data is also provided in a CD facilitating quick, easy and low cost access to data and information, given the bottlenecks of Internet connectivity and cost of telephone calls.

In Karnataka, key among the showcased e-governance projects of the state are the Bhoomi and the Belandur Gram Panchayat initiatives.

The Bhoomi project is based on a computerized database allowing farmers to access and update land records through kiosks.

Legacy data has been captured by the project, covering 200 lakh records in 1 billion data fields. Bhoomi has successfully placed land records in the public domain. Currently there are 177 Bhoomi kiosks covering 27,000 villages. Bhoomi sells 7 lakh records every month and earns Rs 1 crore on these transactions and is an example of a revenue-earning model.

Bhoomi is faced with certain challenges at this juncture. Given the abolition of the manual system, which operated out of 10,000 delivery points, farmers now have to travel great distances to obtain a land record. Up scaling the project has now become a dire necessity but the government does not have the wherewithal to expand the project. Also, expansion brings with it the need to provide adequate support in terms of maintenance and networking. The Bhoomi project is keen on private sector involvement. The government wants to keep Bhoomi alive and take it to many more delivery points at sub-district levels, by positioning the land records database as a "killer-application" which will ensure kiosk operators a minimum income of Rs 3,000 a month. This advantage, it is hoped, will see a convergence of interests of both government and private players in the information kiosk business. The project is already exploring partnerships with the private sector for "retailing". The franchisee model is already working in Mandya with the partnership of n-Logue.

Non-government players like the Foundation of Occupational Development in Tamil Nadu, which is keen on partnering the government in shaping the e-governance agenda, are trying out new models. FOOD has helped the Tambaram municipality, close to Chennai city, move in the direction of e-governance. Information and services are available online on [www.snegham.com](http://www.snegham.com), the website of the municipality. FOOD is currently involved in setting up an e-governance project for the Kanchipuram district authority, based on an enterprise model, which in many places is being steered by women self-help groups. The RASI Maiyams are working in 25 locations in the district and connect to the Tamil

website [rasikanchi.tn.nic.in](http://rasikanchi.tn.nic.in) for C-G and G-C transactions. Educational CDs developed by FOOD are being used in two centers. Some centers are teaching basic computer operations to self-help group members. Some of them are involved in DTP work and all of them are currently involved in data entry of the BPL (Below Poverty Line) data from nearby villages, a contract entrusted to them by the DRDA Kanchipuram. [8]

Information security in E-Governance of India Survey:

E-Governance: Some IT Steps for Democracy

State governments are making use of IT to improve functions, though the efficacy is yet to be felt by the common man... Nevertheless, it is a great starting point.

Imagine a situation in which all transactions with the government can be done through one counter without having to wait in long queues. This is one of the many visions envisaged by the concept of electronic or e-governance. The objective of e-governance is to support and simplify governance for all parties - government, citizens and businesses. In e-governance, IT supports and stimulates good governance through better public service delivery to individual citizens and businesses, transparency in information, and easier citizen access to authorities.

Easier systems for data processing in government offices, the advent of the Internet took government-citizen interfaces to hitherto unexplored levels. Those who believe in the power of the Internet view it as the catalyst of institutional and process leapfrogging, as it possesses the competence to make governments more accountable to people. The Internet, they opine, is uniquely suited for public affairs and public interest communications in a manner unlike any other existing medium, as it keeps everybody informed at all times; and since governance stands on the edifice of accountability, the Internet could prove to be a faithful ally, especially in ending official secrecy about information and in mitigating corruption in public life. The Internet is considered

to be a manageable deployment of e-governance that allows governments to network heterogeneous processes and technology environments within a single framework.

#### E-governance and India

In India the concept of "E-Governance" began with National Informatics Centre's efforts to connect all district headquarters through computers in the 1980s. This typically included connectivity, networking, technology up gradation, selective delivery systems for information and services and an array of software solutions. Recently, the working group on convergence and e-governance of the Planning Commission recommended that the government earmark \$587 million in addition to the 3% plan outlay of each ministry for e-governance and convergence projects during the Tenth Five Year Plan (2002-2007).

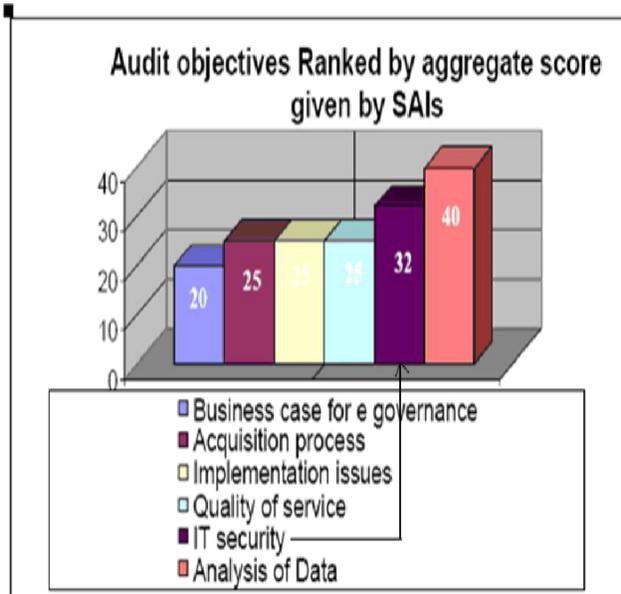
The Planning Commission has proposed that an India portal be set up at a cost of \$21.7 million to serve as a one-stop destination for public access to information on various aspects of government functioning, as well as a single window for delivery of government services. The Planning Commission has also recommended earmarking \$130 million to create a citizens' database through smart cards and IDs. According to a report of the working group on convergence and e-government, the smart card could be used as a multi-purpose card, which will help the citizen interact for utilities and services, make bill payments, vote electronically, and obtain ration cards, passports and driving licenses.

The US has recently adopted an e-governance act. In India, the legal framework of information technology is supported by the IT Act, 2000. Experts however, feel that this act is not sufficient to deal with e-governance. The act covers all important issues related to information security but it does not have under its preview the new emerging inter-agency cooperation that will be required for an information society. Internet-based government services involving inter-agency cooperation are especially difficult to develop and promote, in part because of a lack of sufficient

funding mechanisms to support such inter-agency cooperation and the requisite legal framework. Currently, all e-governance initiatives exist as islands of successes and there is a need to make such initiatives inter-operable, through a legal framework that will spell this out.

In urban India, e-governance is being deployed primarily to provide public services by way of online payment of bills and taxes, and issuance of certificates, but very few cities and towns have portals that facilitate citizen to government interfaces. In rural India, however, the concept of e-governance is being popularized through the telecentre model, wherein provision of government information and interface with authorities has become an essential ingredient for the business viability of the telecentre. Government records and income, land, domicile, caste and below poverty line certificates, landholder's passbook of land rights and loans, online submission of applications under various schemes, driving licenses, loan applications, pension applications, birth and death certificates etc., are being provided by telecenters to the public in rural areas. [8]

1. **SAI (Supreme Audit Institutions) represents the IT securities are ranked much lower as per audit objectives. [9]**



What are the measures that central and state government department in India can take to secure privacy and protection of confidential data?

According to the DSCI-KPMG Data Security Survey 2009, 43 per cent of Indian organizations are concerned about data security risks due to mobile, remote and “always-on” access. Data privacy also emerges as a steadily growing trend – 99 per cent participants from telecom and 96 per cent from financial services attributed it to be ‘Critical’ or ‘Top’. One of the reasons for the growing focus on data privacy could be the increased inflow of critical data and processes to outsourcing service providers.

Legal, contractual and compliance requirements are resulting in clients from various geographies demanding greater assurance on data privacy by the outsourcing service providers. An attempt was made, through a survey, to identify significant threats to data privacy, as perceived by the respondents. The results revealed that scenarios such as emails without encryption (63%) printing of information (60%), use of CDs and USBs (57%), employees retaining critical information (51%) are being given serious thought.

Security challenges – How to overcome?

Implementation of ISMS / ISO 27001

Implementation of PKI (Public Key Infrastructure)

Third Party Audits

VPN (Virtual Private Network), IDS (intrusion detection system), Anti-Virus, Firewalls etc.

Public key cryptography

Each entity is assigned a pair of keys –

Private - known only by the owner

Public - known by everyone

Information encrypted with the private key can only be decrypted by the corresponding public key and vice versa

Digital Signatures

Signing using the sender’s Private Key

Verification using the sender’s Public Key

Ensures

– Authentication

– Non Repudiation

– Integrity

Encryption

– Encryption using the Public Key of the recipient

– Decryption using the recipient’s Private Key

Ensures: Confidentiality

Digital Signature Certificates

– TRUST in the authenticity of the Digital Signature created by the Private Key is determined by the Trust that can be placed in the Public key

– Public key Certificates or Digital Signature

Certificates bind a “public key” to an “Identity” \*11+

### Conclusion

There has never been such a thing as a totally secure system. Hackers will always find more sophisticated ways to gain access to even unauthorized information. However, with technology implementing higher levels of information security, such as iris recognition systems, security systems should keep them out for a little longer.

E-Governance is yet another promise of the IT revolution. In India, e-governance is still in its infancy, and the efficacy of the model is yet to be felt by most of India. The critics of e-governance view it as another glorified panacea offered to cure the tribulations that the developing world faces. India is not far behind on the road, but these are still early days to judge the efficacy of the e-governance route in the sphere of public administration. So, does technology mediated governance have the potential to set free the largest democracy of the world from the stronghold of vested interests? Time alone will tell.

### References:

<http://www.wisegEEK.com/what-is-information-security.htm>

<http://www.expresscomputeronline.com/20030324/focus1.shtml>

<http://www.nasscom.in/Nasscom/templates/NormalPage.aspx?id=2648>

<http://egovindia.wordpress.com/>

Cryptography and Network Security Principles and Practices, Fourth Edition, William Stallings.

[http://en.wikipedia.org/wiki/ISO\\_17799/](http://en.wikipedia.org/wiki/ISO_17799/)

<http://egovindia.wordpress.com/2006/06/23/securing-e-governance-digitally/>

<http://dqindia.ciol.com/content/special/103063001.asp>

[http://www.intosaiitaudit.org/muscat/THE-auditing\\_egovernment.pdf](http://www.intosaiitaudit.org/muscat/THE-auditing_egovernment.pdf)

[http://egovstandards.gov.in/states\\_repositories/andhrapradesh/brainstroming\\_sessions/andhrapradesh/network-information-security-standards/egsworkshopfile.2006-12-13.2053195796/](http://egovstandards.gov.in/states_repositories/andhrapradesh/brainstroming_sessions/andhrapradesh/network-information-security-standards/egsworkshopfile.2006-12-13.2053195796/)

[http://www.iimahd.ernet.in/sim09/Speakers/Renu\\_Budhdhiraja.pdf](http://www.iimahd.ernet.in/sim09/Speakers/Renu_Budhdhiraja.pdf)

**BY:**

**MS. HARSHIDA PATEL**

**ASSISTANT LECTURER**

**SEMCOM**

## My Voice:

### Lessons about Leadership From Mythology

Raja Bhoj of Dhar was passing by the farm, the farmer who was standing on the upper surface of his farm, saw the king and invited him to his farm. When Raja Bhoj entered his farm, the farmer stepped down from the upper surface of the earth, and there was drastic change in his behavior. He started shouting at Raja Bhoj, cursing him and his soldiers for spoiling his crop. When Raja Bhoj turned to leave the farm, the farmer again went to the upper surface of earth, and there was remarkable change in his behavior. The farmer once again politely, courteously invited Raja Bhoj and his soldiers to his farm. Raja Bhoj understood that there was something beneath the upper surface of earth, which was causing the change in the behavior of the farmer. He commanded his soldiers to dig the upper surface of the earth, and he was surprised to see a grand throne lying beneath the surface of the earth. It was a grand throne with 32 classical female dancers engraved beneath the throne.

Raja Bhoj took the throne to his kingdom and on an auspicious day after prayer was about to mount the throne. Suddenly one classical female dancer (also called Apsara in Hindi language) came out of it, and told Raja Bhoj that the throne belonged to the great King Maharaja Vikramaditya of Ujjain. She told Raja Bhoj about the virtues and greatness of King Vikramaditya and told him that only a king with the matching the qualities and virtues of Maharaja Vikramaditya can sit on the throne. For the next couple of days each female classical dancer (Apsara) narrated the greatness of King Vikramaditya of Ujjain, and when the thirty second dancer had narrated the story, she told Raja Bhoj that now all the thirty two dancers were free from a curse, because of which they were engraved on the throne. She told Raja Bhoj that he too is a great King like Maharaja Vikramaditya, and therefore he is entitled to sit on the throne and work for the welfare of his subjects. Raja Bhoj ruled his kingdom wisely and is considered as one of the greatest kings who worked for the welfare of his subjects.

Mythological story of the throne of Maharaja Vikramaditya and Raja Bhoj tells us that to become a leader one should have good qualities, virtues, patience and to practice servant leadership. Servant leadership is a concept given by Robert Greenleaf which says that good leaders should be unselfish, understand their subordinates and followers, develop their knowledge and skills, elevate them to higher level of organization performance and thereby enable them to earn promotion and better designation, salary and other benefits as well as elevating himself by development of sound organizational climate based on mutual trust and respect. Lord Shri Ram, Lord Shri Krishna, Lord Shiva and saints like Sai Baba worked for the welfare of people and earned their love, respect and devotion. Ancient mythological stories have a world of wisdom and managers and leaders can benefit by reading, understanding and following them.

**BY:**

**MR. SUNIL CHAUDHARY**

**ASSISTANT PROFESSOR,**

**SEMCOM.**

## ManageAnt:

### Service Marketing ManageAnt

In today's global environment, the service sector occupies a key role in every economy. For instance two thirds of the economies in developed countries are service economies. In India about half of the economy is now in the services sector and this sector continues to move very fast. Service sector has been considered as post-industrial development. Even the so-called "Industrial

Revolution" can more accurately be described as a service revolution for it could not have taken place without the development of the crucial service sectors. This article emphasizes on service marketing as the need of the hour, by focusing on the reasons for the growth of service industry and the challenges lying ahead.

Stated simply, Services Marketing refers to the marketing of services as against tangible products.<sup>1</sup>

Marketing of services is a relatively new phenomenon in the domain of marketing, having gained in importance as a discipline only towards the end of the 20th century.<sup>1</sup>

Services marketing first came to the fore in the 1980's when the debate started on whether marketing of services was significantly different from that of products so as to be classified as a separate discipline. Prior to this, services were considered just an aid to the production and marketing of goods and hence were not deemed as having separate relevance of their own.<sup>1</sup>

#### STAGES OF SERVICE MARKETING

The life of services marketing has undergone three stages:

##### The Crawling Out stage (Pre-1980)

The 1980's however saw a shift in this thinking. As the service sector started to grow in importance and emerged as a significant employer and contributor to the GDP, academics and marketing

practitioners began to look at the marketing of services in a new light. That was a period of high risk. If it was shown that service marketing was a mere extension of goods marketing, the discipline would have no solid base which would disappear. The objective is to prove the right of service marketing to exist.<sup>1</sup>

##### The Scurrying About stage (1980-1985)

By the mid 1990's, Services Marketing was firmly entrenched as a significant sub discipline of marketing with its own growing significance in the increasingly service sector dominated economies of the new millennium.<sup>1</sup>

At that point of time there was notable increase in the interest of practitioners and academics in the case of services marketing. The objectives are to reinforce, even further, the argument that, despite the similarities of the marketing services necessitated in a different management approach.

The outcome of the significant growth was the special nature of services, Service Quality, Service Encounters, Service Design, and new service development.

##### The Walking Erect stage (1986-today)

In these days, there are new areas of inquiry for service marketing are: Customer Retention, Relationship Marketing, Green Issues in Services Marketing, Branding Services, Internationalization of Services, Direct Services Marketing, Sponsorship in Services, Franchising in Services, Services Marketing is a respected sub-discipline of marketing.

#### SERVICES CREATE DISTINCTIVE MARKETING CHALLENGES<sup>2</sup>

■

The eight common differences are:

1. Most service products cannot be registered
2. Intangible elements usually dominate value creation

3. Services are often difficult to visualize and understand
4. Customers may be involved in co-production
5. People may be part of the service experience
6. Operational inputs and outputs tend to vary more widely
7. The time factor often assumes great importance
8. Distribution may take place through nonphysical channels

### Conclusion

Service marketing is also worth special attention because of its scope- almost half of what we spend goes for services and about two-third of non-governmental jobs are in the service field. Not only are services of considerable importance in our economy today, but the prospects are that they will continue to grow faster than the product segment of the economy.

### References:

1. <http://www.managementstudyguide.com/definition-and-characteristics-of-services.htm>  
[http://www.scribd.com/doc/49692474/1/A - Framework-for-Developing-Effective-Service-Marketing-Strategies](http://www.scribd.com/doc/49692474/1/A-Framework-for-Developing-Effective-Service-Marketing-Strategies)
2. Valarie A Zeithaml & Mary Jo Bitner, "Service Marketing – Integrating Customer Focus Across the Firm ", Tata McGraw Hill Publishing Company Limited, pp.6  
<http://www.slideshare.net/birubiru/mos-revision-slides>
3. [http://books.google.co.in/books?id=pnni9sWNWL8C&pg=PA1&dq=service+marketing+an+introduction&hl=en&sa=X&ei=6MX\\_T40tEo-JrAfEsMinBg&ved=0CDcQ6AEwATgK#v=one](http://books.google.co.in/books?id=pnni9sWNWL8C&pg=PA1&dq=service+marketing+an+introduction&hl=en&sa=X&ei=6MX_T40tEo-JrAfEsMinBg&ved=0CDcQ6AEwATgK#v=one)

page&q=service%20marketing%20an%20introduction&f=false

Looking Forward!

**BY:**

**DR. VIGNA OZA**

**ASSISTANT PROFESSOR,**

**SEMCOM.**

### **Being: Be a Student of a Student**

Hindu mythology says that there are more than 33 crores Gods and Goddesses, who help common people to understand life in a better way. We, as common men, do not know about God and Goddesses but of course in life we learn some minute things from different people. Sometimes, without our knowledge, we begin to cultivate some good habits of different people in our lives. As we meet people, we exchange our thoughts and ideas with the people. Consciously or unconsciously, we observe the person with whom we communicate.

From the little experience of teaching, I have come to know that students are great observers. Unconsciously, they adopt almost each and every style and way of presenting of their teachers. Every teacher has one peculiar word, sentence or the way of greeting them that sometimes teachers are unaware of. Once a student came to me and said that he had observed one thing in my class, which I was not aware of. They observe, but few of them implement in life the correct observation. One should develop the observation power from students, but from the perspective of learning and not just have fun.

Recently, I had been to Kalyani University, West Bengal for National Youth Festival. The youth of India gathered there. A person from Gujarat was standing in a queue for lunch and a person from Tamil Nadu came and helped him, a person from Jammu-Kashmir asked for the help of a student of Karnataka, they had all gathered together and enjoyed the festival as one and not in groups. I saw a person interacting with a person of the One Act Play team of Gujarat about the theme and the plot of the drama only because he could see the play but the language barrier forced him to ask questions. Though the person, himself directed drama and skit there, he wanted to learn something from other teams. It shows how a person can respect the other person of the same field. If a person in his/her life develops such learning ability and openness, he or she receives a great amount of learning from the world.

I observed the dedication of the students towards their events. Some students of a university went to the other side of the country to learn a ten minute folk dance. It shows a dedication towards an art. It stop here, there were many students who were constantly rehearsing their Raga or Taal for their event of Classical Vocal or Classical instrumental. One can say, that the vision of doing their best at national level was reflected in their eyes. So many students were staying with minimum facilities or needs, but the focus was on their art, whether it was One Act Play, Classical Dance, Folk Orchestra or Debate.

Students are always keen to learn. And we can learn this eagerness of learning from students. The way they ask questions, without fear in eyes, without hesitation, without fumbling. If one develops learning eagerness, one can learn from even from a child. Students are the ravine of learning. Be a student of a student to learn endless values of life.

**BY:**

**MR. DIPAN BHATT**

**ASSISTANT PROFESSOR,**

**SEMCOM.**

## GREEN CORNER:

### Twelfth Five Year Plan Approaches for Sustainable Development and Lower Carbon Strategies

The Twelfth Plan strategy suggests that there are significant 'co-benefits' for climate action with inclusive and sustainable growth. India as a large responsible player with very low income has also to ensure that these efforts are matched by equitable and fair burden sharing among countries, taking into account the historical responsibilities for emissions. These issues are being discussed in the UNFCCC.

India's approach to a lower-carbon growth strategy explicitly recognizes that policies have to be inclusive and differentiated across sectors according to national priorities, so as to lower the transaction costs of implementing the policy, and conform to a nationally fair burden-sharing mechanism. An Expert Group on Low Carbon Strategies appointed by the Planning Commission has outlined the lower carbon strategies for major potential carbon mitigation sectors:

(i) Power: On the supply side, adopt super-critical technologies in coal-based thermal power plants; use gas in combined heat and power systems; invest in renewable technologies; and develop hydropower in a sustainable manner. On the demand side, accelerate adoption of super-efficient electrical appliances through market and regulatory mechanisms; enhance efficiency of agricultural pump sets and industrial equipment with better technology; modernize transmission and distribution to bring technical and commercial losses down to world average levels; universalize access to electricity; and accelerate power-sector reforms.

(ii) Transport: Increase the share of rail in overall freight transport; improve the efficiency of rail freight transport; make it price competitive by bringing down the levels of cross-subsidization between freight and passenger transport; complete dedicated rail corridor; improve share and efficiency of public transport system; and improve

fuel efficiency of vehicles through both market-based and regulatory mechanisms.

(iii) Industry: Greenfield plants in the iron and steel and cement sectors adopt best available technology; existing plants, particularly small and medium ones, modernize and adopt green technology at an accelerated pace, with transparent financing mechanisms.

(iv) Buildings: Evolve and institutionalize green building codes at all levels of government.

(v) Forestry: 'Green India Mission' to regenerate at least 4 million ha of degraded forest; increase density of forest cover on 2 million ha of moderately dense forest; and overall increase the density of forest and tree cover on 10 million ha of forest, waste, and community lands.

#### Doha Climate Change Conference 2012

12.25 The 18th session of the COP to the UNFCCC, that started on 26 November and concluded on 8 December 2012 in Doha, Qatar has resulted in a set of decisions (clubbed together as 'Doha Climate Gateway') aimed at advancing the implementation of the UNFCCC and its Kyoto Protocol (KP).

12.26 The key issues for the Doha conference were: amending the KP to implement the second commitment period under the Protocol; successfully concluding the work of the Bali Action Plan (BAP) within which there was urgent need for a clear path to climate finance; and planning the work under the Durban Platform (DP) for enhanced action. The Conference addressed all three issues and came out with a package which balanced the interests and obligations of various countries (Box 12.4).

12.27 At the Doha Conference, the three issues of equity, technology-related IPRs, and unilateral measures raised by India resounded in the decisions. These outstanding or unresolved issues under the BAP are now part of the planned or continuing work of various bodies of the Convention. At Doha, India also ensured that no hasty decision is taken on aspects related to mitigation in agricultural sector at global level as agriculture is a sensitive sector for developing countries. The Conference has explicitly recognized

that the action of Parties will be based on equity and CBDR including the need for equitable access to sustainable development. The Conference also recognized that issues relating to global peaking that could place a cap on emissions of developing countries and restrict their development space were controversial and best avoided at this stage of development.

Box 12.4: Key Doha Outcomes

- It has been agreed that the KP, as the only existing and binding agreement under which developed countries commit to cutting emissions of GHGs, will enter a second commitment period that will run for eight years.
- Governments have agreed to speedily work toward a climate change agreement under DP applicable to all countries from 2020, to be adopted by 2015. Further governments have decided to find ways to scale up efforts before 2020 to meet the gap in global ambition for emissions reduction.
- Governments have launched a robust process to review the long-term temperature goal. This will start in 2013 and conclude by 2015 and is a reality check on the advance of the climate change threat and the possible need to mobilize further action.
- The Work Programme on Long term Finance launched last year has been extended for another year to contribute to the ongoing efforts to scale up mobilization of climate finance. Developed countries have reiterated their commitment to deliver on promises of mobilizing US\$100 billion both for adaptation and mitigation by 2020.
- Decision also encourages developed countries to increase efforts for providing finance between 2013 and 2015, and at least to the average annual level provided during the 2010-2012 fast-start finance period.
- Finance pledges of about \$ 6 billion for period up to 2015 announced by Germany,

the UK, France, Denmark, Sweden and the EU Commission.

- The selection of the Republic of Korea by the Board of the Green Climate Fund (GCF) to host the GCF has been endorsed.

The unresolved issues of technology-related Intellectual Property Rights (IPRs) and the Unilateral Measures under the BAP are now part of the planned or continuing work of various bodies of the Convention. Based on the decisions, the Technology Executive Committee (TEC) will initiate exploration of issues relating to enabling environments and barriers, including IPRs in its future work-plan. The TEC has already identified IPRs as one of the key messages on which further work is necessary. Similarly, a decision has been taken for facilitating discussion on the issue of unilateral measures under the existing forum on implementation of response measures.

**BY:**

**MS. HIRAL PATEL**

**ASSISTANT PROFESSOR,**

**SEMCOM**

## CommuniCare:

### Podcasts in Management Education

#### About Podcasts

Podcast is a multimedia digital file made available on the Internet for downloading to a portable media player, computer, etc. and podcasting is to make a multimedia digital file available as a podcast. In other words, podcast is a series of files grouped together by a Podcaster and distributed over the internet via an RSS feed which can be subscribed to by Subscribers using a Pod Catcher.

The word "podcasting" is a combination of two words "broadcasting" and "iPod". It is available in the most popular format of MP3. Podcasting is a form of audio broadcasting on the Internet. It got its name because initially people used to download podcasts to listen to them on iPods. But now it is not the case. You may listen to podcast on any music software on your computer like Media Player or Winamp.

Podcasting was initially known as "audioblogging" and it has its roots in 1980s. With the advent of broadband internet and portable digital audio playback devices such as the iPod, it began to catch hold in late 2004. Today there are more than 115,000 English-language podcasts available on the internet, and several websites available for distribution at little or no cost to the producer or listener. (Wikipedia)

How is it different

We have been searching and then downloading a music or MP3 file and listening to it. Then what makes podcast different. It is all about having the files come to you instead of you going to the files through search. Podcasting uses RSS (Really Simple Syndication) which is an XML-based technology. Podcast creators describe new content in an XML RSS file which includes dates, titles, descriptions, and links to MP3 files; this is called an RSS feed. In order to create a Podcast, you must be able to create an RSS feed. In order to create an RSS feed,

you must have some basic working knowledge of XML.

Then one can subscribe to podcasts like subscribing to blogs. In fact often podcasts are distributed through a blog and provided your feed reading software handles podcasts you should be able to either instruct your reader to download new podcasts whenever they become available or manually choose which podcasts you want to download by clicking a link to the audio file. These files can then be listened to

on your computer or you can transfer them to your portable player to listen to later. Some podcast feed reading software are configured to download and transfer the podcast directly to your portable player automatically so you can plug it in and walk away a few minutes later with your latest podcasts downloaded and ready to digest.



#### Podcasting for educators

Businessenglishpod.com has more than 250 podcast lessons to develop business skills like : Click on the link below to listen to podcasts on these skills.

|                   |                  |
|-------------------|------------------|
| Meetings          | Presentations    |
| Telephoning Job   | Negotiations     |
| Interviews Travel | Management       |
| Vocabulary        | Socializing      |
|                   | Business Writing |

You may also

explore the world of podcasts on different area of life.

- Find number of educational podcasts which you will really enjoy. (I couldn't resist myself but watch wonderful Charlie Chaplin. There is lot more than that !)
- Read article on Article on: PODCASTS IN EDUCATION: WHAT, WHY AND HOW? .
- PPT File on Podcasts
- All About Podcast in education where you can access existing podcasts, subscribe to

podcast feeds, create your own podcasts, learn more about educational value of podcasts and also find some of the educational Podcasts. There are also some examples of how Australian teachers and their students are using podcasts to enhance teaching and learning. There is online course available for "Getting Started" which is highly recommended for the beginners.

There are also Podcast 'Wizards' available which make your tasks easier. E.g. PodBean.com has number of podcasts available for many subjects. For instance, **HBR IdeaCast** is a weekly podcast featuring the leading thinkers in business and management from Harvard Business Review.

Entrepreneurial Thought Leaders is a weekly seminar series on entrepreneurship, co-sponsored by a student entrepreneurship group of Stanford Technology Ventures Program, and the Department of Management Science and Engineering. At the same time one should also be little bit aware about copyright and Podcasts. One should be cautious while Creating and using podcasts.

Wise Pastry:  
TED.com

**BY:**

**MS. NISHRIN PATHAN**  
**ASSISTANT PROFESSOR,**  
**SEMCOM.**

## Contributors:

"DRIVE" is regular monthly e-news letter published by **SEMCOM**. This e-news letter deals in all aspects of management, commerce, economics, technology and Humanities. It is open for all students, alumni, teachers and professionals dealing with above stated areas.

Your contribution in the form of research papers, articles, review papers, case studies are invited for publication. All papers received by us will be published after the approval of our Editorial Team.

You are requested to send your article to [kpatel@SEMCOM.ac.in](mailto:kpatel@SEMCOM.ac.in)

OR

mail at:

SGM English Medium College of Commerce & Management (**SEMCOM**)

Opp. Shastri Ground  
Vallabh Vidyanagar - 388 120  
GUJARAT  
INDIA

Tel. No. : +91 2692 235624, 231811  
Fax. No. : +91 2692 235624

