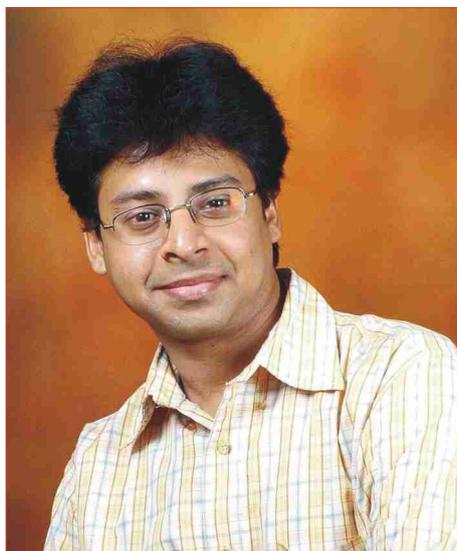


BEST FEATURE IN IT JOURNALISM



Srikanth RP

Srikanth RP won the PoleStar Award for his article, 'How Indian TV show Satyamev Jayate used Big Data to inspire the world', which appeared in InformationWeek, dated August 2012.

Srikanth RP is a vastly experienced communications specialist with more than 16 years of experience, with core expertise in writing about the business of Information Technology.

Srikanth is currently working with United Business Media (UBM) in the capacity of Executive Editor, InformationWeek (India). UBM is one of the world's largest media organizations, which owns brands such as InformationWeek, INTEROP, Network Computing and Dr Dobbs Journal. Srikanth is fully responsible for the InformationWeek (India) edition, leading a team of talented journalists. Prior to this, he was playing the role of Head-Conference for INTEROP (Mumbai) and Cloud Connect (Bengaluru), besides being responsible for InformationWeek (India).

In the past, Srikanth has headed the editorial operations of the Bombay bureau of Express Computer, one of India's leading IT magazines, where he was responsible for conceptualizing and creating a robust editorial plan that accurately captured the pulse of existing industry and technology trends.

He has also been associated with Patni Computer Systems, (now acquired by iGate), where he was a key member of the communications and thought leadership team responsible for creating a compelling value proposition, through focused written communications such as books, whitepapers etc. After Patni, he was associated with Capgemini India Consulting Private Limited, one of the world's premier IT consulting companies, where he headed the Internal Communications function.

How Indian TV show Satyamev Jayate used Big Data to inspire the world

Highly popular television show, Satyamev Jayate, is a perfect example of how Big Data can be used to deliver maximum impact on society

Srikanth RP

August 27, 2012



On 6th May 2012, as curious Indians sat down in front of their television sets to catch the first episode of 'Satyamev Jayate' — a television series focused on social issues in India, there was nervousness in the air. Besides the producers who were obviously eager to gauge how viewers rated the show, there was another team in the background who was waiting diligently to execute one of its toughest projects. This team was from Persistent Systems who was given the task of analyzing messages generated from social media. The show's producers, in a first, wanted to analyze the messages that they would receive on social media to not only better plan future episodes, but also use the data to push for improved governance.

For Persistent Systems, who had done many Big Data projects earlier, this project was unique and different as the scale and type of data that would be received was difficult to comprehend. "We had no precedent in the industry which could help us build a system. The data could come from in different formats from a variety of different sources, such as Facebook, Twitter, websites, SMS polls and phone voice messages. This data needed to be analyzed immediately to understand the impact that the show had at an individual and society level. What made all this much more complex was the fact that we had no dry run," says Mukund Deshpande, Head BI and Analytics Competency, Persistent Systems. All Persistent Systems could do is gauge the type of response that could be expected. An intense marketing activity and an actor as popular as Aamir Khan hosting the show meant that the show was expected to witness huge viewership and participation. Additionally, as the show was based on social issues, it was expected that a large amount of information would be required to be collected.

While it had no operating guidelines, Persistent designed a system it believed was flexible enough to handle the load. "We did not know what to expect. We just said — let's get ready for the firehose," says Deshpande, referring to the huge avalanche of data that was expected from tweets and other platforms.

Finding a relevant tweet in a flood of information

The huge popularity of the show surprised everybody. And then the flood of data began flowing in from all sources. The first episode on 'female foeticide' gathered 1.4 million responses from all sources. The data was in different formats — text, audio and video and in different languages that modern India was comfortable with — English and Hinglish (Mixture of Hindi and English). As the popularity of the show grew, so did the tweets and the messages from different social networks.

"We aggregated more than half a million tweets for season 1. We saw traffic of around 40,000 tweets on an average during the 90 minutes of the show and observed Twitter traffic used to be higher on Sunday and Monday. We followed a two-phased approach for the Live Analytics used during the show. We leveraged crowdsourcing for analysis and for deeper insights, we built algorithms to filter out the relevant tweets," explains Deshpande.

During the course of the engagement, there were close to 1,000 people divided into three groups involved at various stages of the development process. Persistent decided to build a software platform to filter/tag contents in a systematic manner. This tool was developed by assembling an array of automated tools to parse the data and a user interface for several analysts to process messages for deep analytics. The result is a cluster-based analysis along with trend, demographics and sentiment analysis for each message. The final step involved a manual check to find the latest and relevant top story. The results were aggregated and then further used for creating visualizations and dashboards. The analysis was done for all the 13 episodes over a thirteen week period. Persistent's challenge was building the right



We saw traffic of around 40,000 tweets on an average during the 90 minutes of the show. We followed a two-phased approach for the Live Analytics used during the show – we leveraged crowd-sourcing for analysis and built algorithms to filter out the relevant tweets ”

Mukund Deshpande
Head BI & Analytics Competency,
Persistent Systems



1,249,440,319 Connections



14,972,514 Responses



8,115,739 Community Members



97,796,924 In Donations



taxonomy for helping the system automatically sort out messages and unearth the right 'emotion' from the message. Messages included personal experiences, messages of hope, requests for help, solutions to problems, opinions about the topic and suggestions for new episodes. More than 50 tags were considered per episode for the analysis, and every message was scanned for these tags.

Sentiment analysis for a social topic is really complex. For example, given the topics addressed, such as female foeticide and medical malpractices, the tweets would be negative as it was more likely that the tweets used terms which were negative. But in reality, most people were positive and enthusiastic about the show. If a typical algorithm was used, most tweets were bound to be shown as negative. Persistent tweaked its algorithm on a constant basis, so that it could analyze and present the most relevant tweets.

The Big Data problem

Given the huge volume of data that needed to be analyzed instantly and on a constant basis, Persistent Systems had a tough task on hand. For example, in season 1, the show created 14 million responses and made more than 1 billion impressions over the web. This was a typical Big Data problem and made the task of data analytics challenging.

Unlike other Big Data problems, in the case of 'Satyamev Jayate', the messages were varied and diverse. As the firm handled more and more data, Persistent kept on tweaking the system to deliver the best results. The team created dashboards for the producers and created the most meaningful visualizations. This information was used by the team to validate the appreciation, hypothesis and assumptions about the show. The data was also made available on the impact section of the show's website. When the Satyamev Jayate team spoke to the government leaders, the team from Persistent made sure that the team had the data to back its claims.

The detailed analysis of data coupled with the persistence of the producers, has ensured that the information collected does not

go to waste. For example, the Chief Justice of the Rajasthan High Court has agreed in principle to set up fast track courts in Jaipur to quickly resolve cases related to female foeticide. The Lok Sabha passed the child protection bill, which was pending for a long period of time.

Using Big Data for governance

In the new era where everybody is connected with social or mobile connections, it is imperative that the government looks at these mediums to collect information. Today, most policy decisions are done using surveys that include only a small sample of respondents. This data is not representative of the whole country, and may be contained to a small region. By collecting and analyzing information, as Persistent has done, decisions and policy formulations can be done more accurately by using a larger set of data.

Big Data Facts, Issues and impact @ Satyamev Jayate

- The show created 14 million responses and made more than 1 billion impressions over the web
- Persistent had to analyze data which came in different formats from a variety of different sources such as Facebook, Twitter, websites, SMS polls and phone voice messages
- Persistent deployed 1,000 people, which were divided into three groups and were involved at various stages of the development process
- The analysis of Big Data has created a huge impact. The Chief Justice of the Rajasthan High Court has agreed in principle to set-up fast track courts in Jaipur to quickly resolve cases related to female foeticide. The Lok Sabha passed the child protection bill, which was pending for a long period of time.

BEST FEATURE IN BUSINESS JOURNALISM



Kandula Subramaniam

Kandula Subramaniam won the PoleStar Award for his article, 'Stinking Rich', which appeared in Outlook Business, dated July 2012.

Kandula Subramaniam, Associate Editor, Outlook Business has over 15 years of experience as a journalist, specializing in the areas of power, infrastructure and economy.

With a M.Phil in applied economics. Kandula started his journalism career with Business Standard in 1996. Before joining Outlook Business, he worked with Businessworld, Indian Express, Financial Express and Business Standard. Apart from writing opinion articles, he has also written several news stories on his specialized subjects and has authored many academic articles on the power sector.

Kandula has a paper published by the UPenn titled 'Thirteen Years of Power Sector Reform in India: are we still groping in the dark?' He has also made presentations on power at World Bank, Teri and other platforms.

Apart from reading and writing, he enjoys listening to music and studying history.

Stinking Rich

There's money in those mounds of garbage - and several companies are lining up for a share

Kandula Subramaniam

July 21, 2012



► **Waste Power:** The 30-acre Ghazipur landfill will now host a 10 MW power plant

Hundreds of birds hovering in the distant horizon are the first giveaway. Then the stench hits you, long before you actually see what appears to be a small hillock on NH24. Close to the border of Delhi and Ghaziabad, this is the Ghazipur landfill — 30 acres of filth that reached and breached saturation years ago and now just lies there, an enormous eyesore and a huge environmental hazard.

Getting rid of it — and of the over-8,000 tonnes of garbage the capital city continues to generate each day — is a gargantuan task. But last year, a solution was found for Ghazipur: a power plant is being constructed at the landfill, which will use the garbage as feedstock to generate 10 MW of electricity. Executed by IL&FS, this will be India's second waste-to-energy (WtE) power plant of its kind. The first — located some distance away at Okhla — started generating electricity in January this year. The Rs 250-crore, 16 MW plant has been set up by Jindal ITF as a public-private partnership with the government of Delhi and will ultimately process about a third of the municipal solid waste (MSW, which is generated mainly by households) in the city.

For most people, trash is just a daily nuisance and a smelly one at that. For many companies in India, though, it's a goldmine waiting to be tapped. Over the past five years, more and more companies have been getting into the business of solid waste management (SWM). And with good reason. Currently, the SWM opportunity in India is estimated at Rs 3,000 crore, with the potential to grow up

to Rs 60,000 crore, according to AK Sahu, president of the National Solid Waste Association of India (NSWAI).



You can't keep creating new landfills. Land is limited, after all

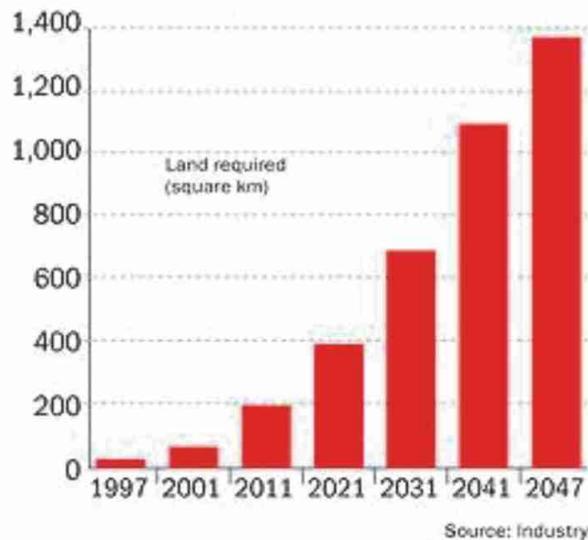
Mahesh Babu, CEO, IL&FS Ecosmart



Certainly, the amount of trash generated isn't likely to go down any time soon. According to a study by India Infrastructure Research, India's urban population registered a CAGR of 2.57% between 2005 and 2011. During the same period, MSW grew at 3.56%. From 173,517 tonnes a day in 2005, the total urban waste generated in 2011 had grown to 214,091 tonnes a day. About 60% of this is biodegradable and can be composted. But the study says there are only about 110 composting facilities in India currently, which can together treat just about half the organic waste generated. That's not nearly enough, especially since the Supreme Court ruled a few years ago that all big cities must dispose solid waste in a scientific manner.

Soiled land

At current rates, land required to dispose of solid waste will rise seven times over the next 35 years



Garbage in, cash out

Why don't local municipalities and state governments take out the trash themselves? For one, there's too much of it already and more waste is being generated every day. For the longest time, burying the rubbish in landfills was the easy way out and as long as it was out of sight, it was also out of mind. But the apex court ruling of 2003 coupled with the fact that big cities are running out of space to create new landfills, meant new ways had to be found to tackle the mountains of rubbish. "You can't keep creating new landfills," says Mahesh Babu, CEO, IL&FS Ecosmart. "Land is limited, after all." (see: Soiled land). Besides, it's not just municipal waste; there's also biomedical, electronic and hazardous waste. But MSW accounts for almost 70% of all trash generated, so it's the most obvious problem.

Even now, local bodies are preoccupied with getting the trash out of people's homes and public areas. "Earlier, municipal funds were mostly used towards collection and transportation. Scientific treatment and disposal of waste is now coming in focus," declares Sethi. The local municipalities have neither the funds, the technology nor the infrastructure to scientifically dispose waste on the scale required and that's why compliance in SWM is abysmally low, just 9% in processing and 1.4% in disposal (see: Trash to cash).

For the corporate sector, waste management is an infrastructure business just like roads, ports or power — which means they are willing to take projects with long payback periods as long as the returns are justifiable. Of course, it's early days yet. "Even though the returns are not too attractive currently and the technology in SWM is yet to prove itself, companies are rushing in because this sector is totally untapped and offers huge potential," declares Goutham Reddy, executive director of Hyderabad-based Ramky Enviro Engineers.

Rs 48,500 cr investment required for SWM in the next 5 years

There are also some mild sweeteners from the government to encourage private participation in this sector, like there are in almost all other infrastructure projects. Some states offer subsidies of Rs 25,000 per MW generated by a WtE plant. Estimates for the 12th Five Year Plan show there is need for over Rs 40,000 crore for SWM projects while the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) has already sanctioned Central funds for 45 projects collectively worth over Rs 2,000 crore. For the private sector, then, SWM is a stinking huge opportunity. As Sahu says, "Waste is money but the idea has been ignored for too long." Not any more.

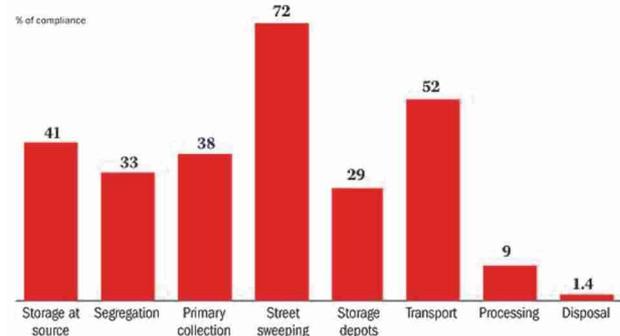
Let's talk trash

Companies such as Ramky, A2Z, SPML, IL&FS, the Essel group and the Jindal group aren't the only players attracted by the potential for SWM in India; even international players such as Singapore's CGEA Asia Holding, the Swiss Hitachi Zosen Inova, Peat International and vendor credit agencies such as Germany's KfW are getting involved in India's SWM. The types of projects companies are undertaking vary widely. In Delhi, for instance, there are already several companies involved in different aspects of SWM. While SPML handles waste collection, segregation and transportation for the Municipal Corporation of Delhi, companies such as Jindal and IL&FS are involved in its disposal, through WtE projects. IL&FS also runs a 200 tonne per day composting facility at Delhi. In other cities, the mandate from the municipalities can be different. These can range from just collection and transportation, scientific disposal (which involves processing, segregating and recycling garbage before dumping it in a sanitary landfill that has safeguards against leaching of toxins into the groundwater), to integrated waste management (doorstep collection of garbage to its scientific disposal).

Regardless, waste disposal is no longer about just collecting the trash and dumping it far away. The world over, sanitary landfills are still the most widely-used method, but new technologies are also being tried out. These include thermal depolymerisation (converting solid material into combustible liquid), pyrolysis (thermochemical decomposition using oxygen), mechanical

Trash to cash

The poor compliance by municipalities in solid waste management can mean huge opportunities for the private sector



biological treatment (recovering material from mixed waste for composting), among others. But most new technologies in SWM are prohibitively expensive, which is why companies are sticking to WtE plants, simple composting facilities, and ways to profitably extract methane from landfills.

Rs 2,000 cr funds sanctioned for 45 SWM projects under the JNNURM

WtE and composting projects also qualify for carbon credits under the clean development mechanism of the UN Framework Convention on Climate Change. But the value of the credits, which can be used for international funding, is dropping because of the uncertainty in global climate change policies. Typically, carbon credits can provide up to 15-20% additional revenue for a project. Few years ago, carbon credits fetched about €10-12 per tonne of carbon not emitted; that's now down to €4. Internal rate of return (IRR) on SWM projects is typically around 15-16%. Ideally, in the infrastructure space, corporates expect above 20% IRR. The cost of setting up WtE projects, too, is higher than in conventional power projects. A thermal power plant requires investment of about Rs 4 crore per MW — the Ghazipur project is being set up at Rs 20 crore per MW while the Jindal ITF plant cost nearly Rs 16 crore per MW. That's why, even though a WtE has no fuel costs, the power it generates doesn't come cheap at around Rs 3.6 a unit.

But then, points out Babu, the objective of the exercise isn't to generate power: the idea is to get rid of the mountains of garbage and power is just a welcome by-product. Indeed, the conventional thinking in such WtE projects is that the comparison shouldn't be with other means of power generation; it should be against the cost of setting up and maintaining a landfill. "It would be wrong to look at WtE projects purely from an energy generation perspective. They go towards benefiting softer targets of development," says Girish Shirodkar, Global Partner and MD, SDG India & Asia Pacific.

SPML, which entered the SWM business in mid-2000, handles waste management in several other cities apart from Delhi. In Madurai, the company is designing and constructing a waste processing and disposal facility for 350 tonnes of trash daily, which will expand to manage 1,000 tonnes every day over the next 20 years. In Allahabad, Mathura and Dehradun, the company is developing integrated SWM facilities for the local municipal bodies as PPP projects. "In Delhi, the responsibility is only to collect MSW from secondary storage points, and to transport it to landfill sites," says Deepak Sethi, director, SPML. "In the other cities, the mandate is much larger — we have to collect the waste from the households, segregate and process it and finally dispose of it at the landfill site." Whereas in Madurai, SPML is paid a fee per tonne of garbage it processes and disposes, in Delhi, the company is paid a tipping fee for each tonne of waste it gets to the landfill.

Ramky has the widest footprint in waste management, from MSW to hazardous industrial waste, e-waste and biomedical waste. In MSW, its projects range from processing and disposal, collection and transportation, street sweeping and integrated

waste management in over 20 cities across India. It is also implementing WtE projects in Delhi, Bengaluru, Hyderabad, Guwahati and Pimpri. The Pimpri and Guwahati projects will dispose 500 tonnes of waste per day while the projects in other cities are of 1,000 tonnes and more.



Now, scientific treatment and disposal of waste is in focus [for municipalities]

Deepak Sethi, Director, SPML



The Gurgaon-based A2Z has 14 SWM projects across India, which range from integrated waste disposal contracts to just processing and disposal of municipal waste. IL&FS, on the other hand, handles scientific disposal while companies such as PEAT are looking at opportunities in India via domestic companies for introducing new technologies in waste disposal.

There's also growing private equity interest in the SWM sector. Consider IL&FS: not only does it have its own SWM arm, the company has also invested in Ramky Enviro Engineers through a consortium of PE investors. IDFC's India Infrastructure Fund has invested in Hanjer Biotech Energies; India Equity Partners, Beacon and Rakesh Jhunjunwala all invested in A2Z; and recently, Clearwater Capital invested about \$10 million in Hydroair Tectonics.

Tipping point

Trouble is, SWM is still an unorganised industry. There are multiple agencies involved at every step of every project, municipalities, state governments, the ministries of urban development and environment, and pollution control boards. "There is no holistic view nor is there enough technical expertise in SWM in India," says Sahu.



Waste is money but the idea has been ignored for too long

AK Sahu, President, NSWAI



The Gorai landfill in Mumbai, the country's first SWM project, illustrates this. In mid-2000 the Mumbai municipality initiated a Rs 60-crore, PPP project with IL&FS and other vendors to cover the landfill; falling in the Coastal Regulation Zone near Gorai creek, it had reached saturation limit and was considered a major environmental threat. By 2007, the landfill was covered and is now a lush, green hill. The methane emitted by the garbage underneath is supposed to be extracted and sold for power generation. The revenue from the sale of the gas as well as the

carbon credits for curtailing emissions of the greenhouse gas were to recoup the investment. As it turns out, the gas output at Gorai is far lower than anticipated. Project executives refused to comment on record but admit that realisations are less than half the target figures. “The entire planning for Gorai was faulty,” declares Sahu. “This landfill was never meant for gas extraction; it should have been composted.”

If faulty planning is to blame for some SWM projects, others are hanging fire because all stakeholders weren't brought on board when the project was conceived. In 2009, residents of housing colonies near the Jindal's WtE plant at Timarpur-Okhla filed a public interest litigation against the project, concerned about possible pollution and health hazards because of the plant and its emissions. Similar protests are mounting against the Ghazipur plant, with the capital's ragpickers also joining in on the grounds that their livelihood is threatened by power plants wanting to incinerate all rubbish.

There are other challenges as well. Consider the Ghazipur landfill, again. When operational, the WtE plant will dispose 1,300 tonnes of garbage a day. But the site already has 5 million tonnes of trash and 2,500 tonnes more is dumped there every day. That means it will take another 10 MW plant just to stop further accumulation of garbage at the landfill. And back of the envelope calculations suggest that one more, 20 MW plant processing

2,600 tonnes a day every day for five years to clean up the site is needed.

Rs 60,000 cr is the potential of the SWM business from the current Rs 3,000 cr

As things stand, it's highly unlikely that any company will be willing to sink Rs 400 crore to set up plants to generate 20 MW at Ghazipur and that, too, for five years — not only will there be doubts on its ability to recoup its investment, what happens to the plant once all the trash is burnt?

Then, for a WtE plant to be viable, it needs to process at least 700 tonnes of MSW each day, but smaller towns in India generate not more than 400-600 tonnes. So a power plant may not be the optimal solution for such areas. There are also questions raised on the quality of compost produced from MSW, its pricing, and also how it will be marketed.

All these are issues that will need to be sorted out quickly if more companies are to enter the SWM project. Greater corporate participation in the sector is certainly needed — those mountains of dirt at Ghazipur aren't going to clean themselves, after all.

JURY'S SPECIAL MENTION AWARD



Ayushman Baruah

Ayushman Baruah won the PoleStar Award for his article, 'Healthcare industry prescribing a dose of technology', which appeared in InformationWeek, dated October 2012.

Ayushman is a Bangalore-based business and IT journalist with about six years of experience. He is currently working as the Principal Correspondent of InformationWeek (India) where he is responsible for writing news, views and features in technology and the business value of technology. Ayushman tracks IT services and emerging technologies such as cloud, mobility, big data, and social media and has written several trend-setting stories around them. He is globally well exposed as he has covered technology summits and conferences both at the national and international level.

A post-graduate in Communications from Commits Institute of Journalism and Mass Communication (Bangalore), Ayushman has earlier worked with reputed publications such as The Financial Express (The Indian Express Ltd) and The Shillong Times. He is also an NSE-certified capital market professional (NCCMP) which gives him an edge in business reporting. An active inter-college debater during his academic years, he takes special interest in speaking at conferences and moderating panel discussions. Besides, Ayushman is a firm believer that good journalism is good business.

Healthcare industry prescribing a dose of technology

Ayushman Baruah

October 22, 2012

Healthcare, pharma and life sciences companies are increasingly adopting technology to optimize cost and ensure better health services

Some years ago, a patient at the operation theatre would be enraged, irritated or at the least nervous if the doctor was seen fiddling with his mobile device. Things have changed much since then and patients have begun to accept technology/mobile devices as an aid rather than a distracting element. Today, both hospitals and doctors make profound use of technology at every move.

The Indian healthcare sector is expected to reach USD 100 billion by 2015 from the current USD 65 billion, growing at around 20 percent a year, according to rating agency Fitch. Given the huge metamorphosis, competition and fast growth the industry is going through, healthcare providers and pharma companies are increasingly investing in IT to improve the quality and delivery of patient care.

“Video conferencing is becoming an important tool in the healthcare ICT portfolio to deliver care more effectively and efficiently. It has become an important tool within a wider portfolio of tele-health services, and is being used in a range of different healthcare settings and for a multitude of different purposes,” says Deepak Braganza, Country Manager, LifeSize India & South Asia.

The telemedicine centre of Nanavati Hospital, the largest telemedicine service provider in Western India, is an example of how a hospital has used video conferencing and communication technology based on ISDN/ broadband/satellitebased connectivity. Using this technology, the hospital provides teleconsultation and tele-education in India through its network of 34 peripheral rural centers in India and in 45 African countries through its international network.

“Since inception in 2006, the center has provided over 4,000 teleconsultations and over 100 CME (Continuing Medical Education) programmes to doctors and paramedics in rural India and Africa. With over 4,000 teleconsultations and 500 treatments, the hospital has till date saved approximately over Rs 1 crore in travel and consultation fees, stay and treatment of patients,” says Dr Pavan Kumar, Head-Department of Telemedicine, Nanavati Hospital.

Consider the case of Bangalore-based specialty pharmaceutical company Allergan India, a joint venture between Allergan Inc and Piramal Healthcare that commence commercial operations in 1996. Given that India is a vast country with varying geography, the company was facing a big challenge in meeting the needs of

their customers and employees, for which, it was looking at innovative ways of making customers and employees meet virtually with a first-hand feel of virtual presence during the meetings.

To achieve this, the company embarked on an IT project called virtual connect where 7 primary locations namely Bangalore, Chennai, Hyderabad, Mumbai, Kolkata, Lucknow and Delhi were connected through hardware equipment, and other locations through third-party connectivity. The new system handled calls from other VC equipment, VoIP calls, calls from software-based solutions, and multi-party calls.

With the new VC system in place, Allergan India has benefitted in many areas, such as HR recruitment, product launches, campaigns and employee sales review meetings. For example, earlier the HR had to invite candidates from multiple locations to Bangalore for interviews and the travel charges would be reimbursed to the candidate.

Now, the candidate can walk into the Allergan zonal office, connect VC to Allergan Bangalore, and interview can happen in 30 minutes at no cost. This has saved the company approximately Rs 20 lakh per annum, says KT Rajan, CIO, Allergan India.

Max Healthcare which has been at the forefront of delivering healthcare services in Delhi-NCR has moved to an Electronic Health Records (EHR) system from their existing Hospital Information System (HIS). The group implemented an open source EHR system, WorldVistA, with the goals of minimizing the need for paper records, allowing order entry by the doctors in the system itself, and enabling easy access to patient records.

The system was hosted on a private cloud and was interfaced with laboratory, radiology and pharmacy to allow real-time access to any patient record. The system included Computerized Patient Record System (CPRS) for documenting, ordering, reporting and viewing of clinical information. Apart from this, Bar Code Medication Administration (BCMA) was implemented along with unit dose dispensing policy to track and reduce waste, returns and medication errors. A health system for accessing laboratory reports and radiology images was also implemented for improving turnaround times of starting care plans.

Today, Max Healthcare facilities catering to 1,000 beds have gone live using the system and all the patients admitted have their records on the system. Till date, the system has approximately processed data of 104,130 patient-days across the facilities that are live with 3,123,900 pharmacy orders, 2,603,250 laboratory orders, 520,650 radiology orders and 312,390 bedside procedures.

TABLETS & SOCIAL MEDIA

Physicians have also realized the importance of technology as it helps them make decisions that are better informed and offer patients with more personalized care. Not surprisingly, today doctors use iPads and smartphones that enable them to work more efficiently. There are numerous iPad applications available in the market that is used for different purposes.

“Smartphone apps have been helping doctors a lot to fine tune their practice. Epocrates app is an invaluable tool to help review drug dosages, interactions, and adverse effects. These apps regularly update and provide with warnings if any new adverse effect is reported or if any drug has been withdrawn. There are other apps that provide doctors with medical calculators to calculate important patient parameters like body-mass index, creatinine clearance, anion gap, etc, which enable critical patient bed-side decisions,” says Dr Sanjay Gogoi, Senior Consultant, Kidney and Urology Institute, Medanta, a super-speciality hospital in Gurgaon. “Micromedex from Thomson Reuters also provide similar information and is free. The Apple app store is full of specialty specific apps which are invaluable and cardiologists and intensivists regularly use them.”

Pharma companies too are conducting trials with tablets. For instance Cipla is now testing the yet unreleased Windows Surface tablet (Windows 8 RT) and plans to deploy it for its field force of medical representatives in India.

Social media such as LinkedIn and Twitter has also helped doctors to form clinical groups for instantly sharing important inputs regarding patient care. Today, inside the operation theatre, most procedures are being documented with videos and clinical photographs, and these go a long way in improving treatment outcome. “Advances in video technology have brought 3D imaging for laparoscopic procedures wherein during surgery, the surgeon and his team sport high tech glasses to view 3D images in large format LCD panels. Dedicated video recorders are increasingly used to record high quality videos for data-keeping and for presentations,” says Medanta’s Dr Gogoi.

TACKLING DATA DELUGE

Market research firm Ovum expects the global IT-related spending in the life sciences sector to grow modestly during the next five years to reach USD 37 billion in 2016. In the short term, Ovum expects this IT spending to increase faster than the rate of total revenue growth for the sector, due to a series of large-scale IT initiatives and changes in the industry’s structure.

Interestingly, the research firm predicts that by 2015, most of these initiatives would have been completed and there could be negligible IT spending growth in the fifth year of the forecast. By this time, the industry will be reaping the benefits of cloud based delivery methods, systems simplification and centralization.

According to Ovum, the emerging markets, particularly the Asia-Pacific region will drive IT spending through 2016. An increasing amount of R&D and manufacturing is being sourced primarily from India and China. Asia-Pacific countries are rapidly becoming centers for life sciences innovation as well as contract manufacturing. In addition, more clinical trials are being conducted in the region to take advantage of lower costs and large “drug-naive” patient populations.

Life sciences companies are currently facing a daunting “data deluge” produced by experimental runs in this industry, which they need to optimize, manage, transfer, store and protect. Such challenges have led to companies such as BT to set up BT for Life Sciences R&D, the first cloud service designed to enable collaboration within the life sciences industry. The new service is designed to allow customers to comply with the industry’s stringent security, regulatory and compliance requirements. The platform will allow participating groups to securely upload documents, share results and communicate via IM, voice, video or chat to analyze results.

To ensure faster data transfer, BT is working with Aspera, provider of nextgeneration data transport technologies, to integrate their innovative file transfer technology into the cloud service. “Aspera’s patented fasp protocol eliminates the fundamental bottlenecks of conventional file transfer technologies and provides highspeed, reliable end-to-end transport over public and private networks fully utilizing available bandwidth, independent of network delays and is able to deal with extreme packet loss,” BT said in a statement.

CONCLUSION

Though the healthcare sector has traditionally seen lower levels of IT investment and adoption, the trend is fast changing. Today, healthcare providers are increasingly turning to IT as they are operating in a competitive environment, each one trying to offer the best possible quality of patient care. This has in fact driven the emergence and growth of sophisticated telemedicine centers, mobile health services, EHRs and medical apps. The life sciences sector, Ovum suggests, will be investing a great deal in technology over the next few years until they begin reaping the benefits of cloud, systems simplification and centralization.

JURY'S SPECIAL MENTION AWARD



Geetika Rustagi

Geetika Rustagi won the PoleStar Award for her article, 'Internal networks at work go social', which appeared in Mint, dated October 2012.

Geetika Rustagi, has been working with Mint since June 2009 as a Web Editor. She graduated from Delhi University with Honors in Journalism and went on to earn a PG Diploma in Journalism specializing in new media from Asian College of Journalism, Chennai.

She is responsible for video production and social media at Mint. Prior to this role, she was on the web desk updating the website and handling social media for livemint.com (the online identity). In these four years, she has been associated with some special projects like Manthan Awards and mBillionth Awards given for outstanding work in the field of ICT by Digital Empowerment Foundation. She has also been reporting on social media, technology, mobile apps and digital trends. Her current work profile revolves around video production and devising social media strategy for Mint.

Her personal interests include social media, advertising, digital trends and branding. She has also worked with the India Today Group and The Hindu's lifestyle supplement MetroPlus and has dabbled into content writing as well.

Internal networks at work go social

Companies worldwide are using social media networks to improve communication with their employees

Geetika Rustagi

October 24, 2012



- ▶ The broad category of content in a company's internal network includes employee profiles, discussion forums, blogs, documents, closed-user working groups and interest groups.

Infosys Ltd engineers have got a way out of coder's block—they log on to an internal portal that mimics popular social networks. So when an engineer with the Java team was in atangle over a coding problem recently, he sought help from the Java community on InfyBubble, launched last July. He had his answer in a few hours.

Tech Mahindra Ltd used its internal network, Oie!, to find a parking solution for its engineers in Bangalore. British budget airline easyJet Plc used its social media to borrow photographs from a staff holiday for an ad campaign. And Bacardi Ltd invited videos created by its employees for a Bacardi Together campaign montage.

Worldwide, companies are using social media networks similar to Facebook Inc. and LinkedIn Corp. to improve how they communicate with their employees and how their employees communicate with each other, hoping to understand them better and encourage greater interaction and ideation. Indian companies have been fast adaptors.

Bangalore-based Infosys calls its InfyBubble a hub for brainstorming. The network has 94,018 members across its centres globally. "Someone asks for employees' ideas on a thread (emails or messages centred around a topic of discussion) and the whole project team starts giving their ideas on the thread itself," says Nandita Gurjar, senior vice-president, group head of human resources, Infosys. "If someone thinks the idea is good, then they 'like' the comment. Based on the most 'liked' solutions,

we arrive on a pool of solutions."

A lot of the activity on corporate social media can also be fun. When Kotak Mahindra Group turned 25, it launched a national talent hunt through its network, Im25.in, called 'Kotak's Got Talent' as part of its 'I M 25' campaign. With more than 5,300 members on the network, about 18,000 board messages (on profile pages) and 1,300 private messages were shared during the three months of the campaign.

It helps that many Indian companies have a pool of young people quick at adapting to platforms similar to Facebook or Twitter. "The formal changes to informal. Hard messages can be communicated in a casual manner without jeopardizing the morale of the younger employees," says Rajesh Lalwani, chief executive and founder of Blogworks, a social media agency.

"In our organization, most employees belong to the 25-30 year age bracket and are extremely tech-savvy. The technology evolves around them," says Dayanand Allapur, head, human resources at retailer Tesco Hindustan Service Centre, India. The company's social network, HUB, connects its 6,500 employees in India to peers across the world.

Need for networks

Knowledge is no longer formal or explicit. Ideas are often shared informally through blogs or status updates on social media (in an earlier era this was done by the coffee machines or in the office cafeteria). So, for many companies, knowledge management and collaboration became the primary drivers for using internal networks.

"Aiming to collaborate and harness our organization's greatest asset—the collective knowledge of our people, we leverage networks to improve learning," says Deepa V. Mukherjee, head (training and development), NIIT Technologies Ltd. "Social media works as a staple of work life and people today seek out employers who understand and acknowledge the critical role these new technologies play in our world."

The company uses Yammer Inc.'s customized enterprise social network as its internal social media platform for employees.

At Sapien, every document, comment or question shared on its network Vox is captured automatically, along with information about the author. "We needed an easy way to tap into our collective knowledge," says Nicole Bussard, product owner and social business strategist, Sapien. The network has more than 10,000 members.

Unlike the traditional intranet portals that are primarily used by

managements to convey information to their employees, social networks are people-centric and “have a huge amount of potential to harness the existing skill sets of the employees”, says Dahmesh Dilkhush, director, collaboration business (IT-enabled services and banking, financial services and insurance), at Cisco India and SAARC (South Asian Association for Regional Cooperation).

“The platforms are not mere activity feeds but are also communication channels wrapping a work product,” adds Sanjay Manchanda, Microsoft business division, Microsoft India. “These help you deliver a product as a fair amount of content is created just around the product development.”

Officially social

Though social networks are by nature informal, a lot of work goes into the enterprise versions. The broad category of content in a company’s internal network includes employee profiles, discussion forums, blogs, documents, closed-user working groups and interest groups.

Such networks also enable “online mentoring of employees and help in building strong support systems,” says Aditya Narayan Mishra, director for marketing at Randstad India Ltd, a human resource management firm.

Social networks play an important role in corporate policymaking as well.

Shivnath Thukral, president, corporate branding and strategies initiative at Essar Group, says the company is tweaking its IT (information technology) policy after feedback from employees on its My Essar network. “Most Essarites cannot access external sites like Facebook due to our IT policy, but are accessing them through their smartphones anyway. We are working with the IT department to figure out a way to allow access,” he says.

Some companies use customized enterprise networks such as Salesforce.com Inc.’s Chatter.com and Yammer to manage inventories and sales operations.

Belkin Corp., a California-based manufacturer of routers, uses Chatter.com for enabling collaboration within its sales teams to provide deals and bid details. For broader collaboration, it uses Yammer. Advertising firm Saatchi and Saatchi uses Chatter.com as a project management platform for employees across offices to share ideas, projects and business plans.

Policy and security

However open these corporate networks are, they are still guided by a company’s social media policy. Network security is also of

extreme importance, as employees are free to connect and share information on these platforms and companies can’t afford to allow any leaks. Sensitivity settings related to content can set off alarms for any information leaks or potential mishaps. Moreover, the networks allow users to create both open and closed groups where people must be invited in order to see and share content.

Negative chatter—especially comments from disgruntled employees or general gossip that may not be quite company-friendly—is an obvious area of concern. “It is an open forum and sensitivities of information may not be understood clearly. It can be misused for things not appropriate such as gossiping, which can be destructive,” says Mishra of Randstad.

Companies declined to share specific examples and dismissed such chatter more as one-off instances. But to deal with it, Tesco Hub has a reminder and an alert system for employees who make harsh comments. Network moderators have the power to warn and ban such users.

Others say such networks should offer space for debate, even if the comments are harsh.

“So far there haven’t been any negative comments and chatter. However, if it does occur in the future, we would view it as constructive feedback and connect to take corrective action,” says Prince Augustin, executive vice-president, group human capital and leadership development, at Mahindra and Mahindra Ltd.

Taking stock of what happens on these networks is important given that they reflect the activity level of employees. Enterprise network providers like Salesforce and Yammer offer client companies dashboard services that list all the activities that happen on internal networks in the form of reports, activity logs and amount of traffic.

Integrated future

According to research by Gartner, by 2014, emails will be replaced by internal social networking sites for 20% of business users. Industry experts say social media won’t kill emails, but internal corporate communication could move into a phase of integration. In other words, networks will integrate and social media platform will simply become the starting point for any work.

In the future it will cease to matter whether information moves via emails or document management systems, says Manchanda of Microsoft India. “The most successful platforms will in turn be the ones that are best able to control the volume of information and tune it so that it’s relevant for the participants.”