Newspaper Clips

January 3, 2011

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'Gen Y can't live without mobiles, email'

London: Today's generation is so hooked to mobiles and the internet that depriving them of their cellphones, emails and gadgets like television and iPod could leave them suffering from symptoms similar to those seen in drug addicts trying to give up, a new study has revealed.

For the study, an international team of researchers asked volunteers to stay away from all emails, text messages, Facebook and Twitter updates for 24 hours. They found the subjects began to develop symptoms typically seen in smokers attempting to quit.

Some of those subjects taking part said they felt like they were undergoing "cold turkey" to break a hard drug habit, while others said it felt like going on a diet. The condition is now being described as Information Deprivation Disorder. "We were not just seeing psychological symptoms, but also physical symptoms," The Daily Telegraph quoted Dr Roman Gerodimos, a lecturer in communication who led the UK section of the international study, as saying.

In fact, in the experiment, called Unplugged, the volunteers at 12 universities around the world spent 24 hours without access to computers, mobile phones, iPods, television, radio and even newspapers. They were allowed to use landline telephones or read books.

> Volunteers asked to stay away from email, SMSs, Facebook and Twitter for 24 hours began to develop symptoms typically seen in smokers attempting to quit

In the research, led by the University of Maryland's International Centre for Media and the Public Agenda, the subjects were asked to keep diaries about their experience.

Entries in the diaries showed that many recorded feeling fidgety, anxious or isolated. Dr Gerodimos of Bournemouth University, said: "The extent to which we are using some of this modern technology is changing us. Participants described feeling fidgety and kept reaching for their mobile phones even when they weren't there.

"There were also some good effects as people developed coping mechanisms they went out for walks and visited friends rather than sitting in front of a computer." PTI

Publication: The Times Of India Delhi;Date: Jan 3, 2011;Section: Times Business;Page: 17;

Patni and iGate put deal on hold

Phaneesh-Led Co Calls Off Today's Press Meet | Patni Bros Seek More Time

Boby Kurian | TNN

Mumbai: The long-drawn sale of Patni Computer Systems suffered another setback with preferred suitor iGate Corporation calling off a press meet scheduled for Monday in which the latter was expected to announce the acquisition. iGate did not provide any reason for cancelling the meet, but sources indicated that its plans to acquire India's seventh largest IT services firm had hit rough weather.

Meanwhile, the Patni board meet is on as scheduled on Monday. Another source involved in the deal-making said it was too early to conclude whether the sale process had collapsed once again, especially since the discussions between Patni and iGate progressed to an extent where it was considered only a formality on Monday.

Sources said the three Patni brothers who, along with General Atlantic Partners, hold 63% stake were seeking more time to explore a better deal, but this could not be confirmed. iGate, along with private equity giant Apax Partners, has offered between Rs 500-505 per share, which is below 10% premium on the prevailing stock price.

Phaneesh Murthy, CEO, iGate

iGate had finalized over $600 million credit lines from Jefferies & Co and Royal Bank of Canada (RBC), besides a commitment of up to $500 million from ally Apax Partners.

On December 25, Patni promoters entered into exclusive talks with iGate and Apax for a potential sale after ironing out most of the vexed issues that have spoiled a deal in the past.

Interestingly, the only rival bidders, a PE consortium led by Carlyle Group and technology entrepreneur Vivek Paul Akansa Capital would have preferred more time after one of its partners Advent International walked out just before submission of binding bid. Throughout the sale process in the last three years, there have been differences among Patni brothers who have different motivations with regard to a potential sell off.

In 2007, Patni promoters first initiated a sale process and had discussed preliminary offers from PE giants Blackstone, Providence, Apax, TPG Capital and Carlyle before the global market crash stymied the process.

The valuations talked at that time was much higher than what was agreed with iGate and Apax last week. Avendus Capital and Ambit Corporate Finance were advising the brothers to reach at a consensus regarding their exit.

Times of India ND 03/01/2011 P6

Majority of DNA similar in all human beings

What is DNA?

DNA or deoxyribonucleic acid is a molecule which carries genetic instructions used in development and functioning of all living beings except a few viruses. In simple terms, the physical characteristics of a human being or any animal are determined by proteins and the codes about how these proteins will get formed are stored in the DNA. The unit of heredity, the gene, is also a part of the DNA. Starting from hair, eye and skin colour, genes determine all the characteristics of the body. DNA is formed like a double helix and its various components are attached together in a particular order. While the majority of DNA is similar in all human beings, about 0.1% of the DNA formations are specific for a particular person, unless he or she has an identical twin. These different DNA sequences can be used as personal fingerprints for forensic investigation.

LEARNING WITH THE TIMES

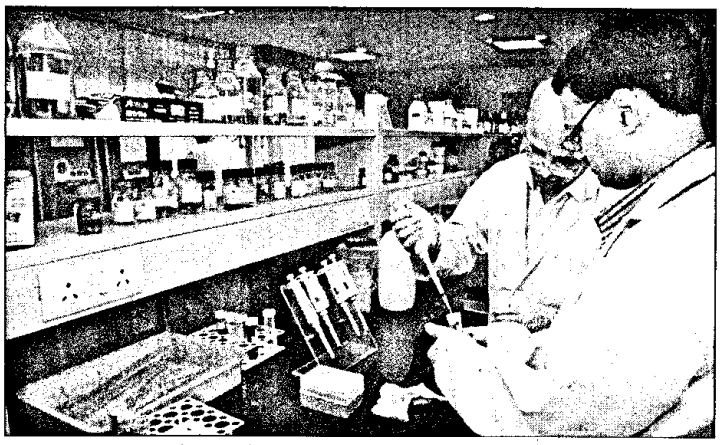
What is collected from a crime scene to make a DNA profile?

DNA profiling or genetic typing is simply the collection of various sequences of DNAs which will be unique for a particular person. As DNA is present in all cells of a living being, prosecuting agencies collect samples of all visible biological evidence from the crime scene. These include blood, bone, hair, semen, skin, saliva and any other body parts or fluids. They are typically found on the weapon or parts of clothing which could have sweat, skin, hair or blood of the assailant. A cigarette butt or bottle can be checked to find the saliva, while condoms and bedsheets can be used to find semen in case of sexual offences. The victim's fingernail is a typical spot for finding DNA samples as it usually contains scraped off skin in case the victim had struggled for release.

How is the profiling done to establish offence?

If the sample is large enough, then RFLP (Restriction Fragment Length Polymorphism) method is used to make a DNA profile. But this method needs a relatively large sample and hence it is now replaced by STR (Short Tandem Repeat analysis). In this process, a small sample of DNA is put through a polymerase chain reaction which replicates the DNA to make a sample substantial enough for analysis. Now these DNA sequences are matched with that of the accused to establish relationship. Internationally, 13 locations of repetition of DNA sequences are taken as the standard to establish that a particular person is the actual perpetrator of the crime.

The techniques are evolving over the years. Till the 1990s, it was said that the items which could be seen are the only ones that could be analysed, but in the last 5-6 years the touch DNA method is evolving. In this method, the investigators have to find the spots where the assailant might have touched the victim. It can be clothes, wrist, hair or anything present at the crime spot. Once the spot is identified, then human cells can be collected and a polymer chain reaction can be used to make a considerably large sample. This method is however not that popular because locating the exact spot of touch remains tricky.



DNA PROFILING: As DNA is present in all cells of a living being, prosecuting agencies collect samples of all visible biological evidence from the crime scene

Can DNA matching be used as the sole evidence for declaring the verdict?

Experts term DNA as a piece of the larger jigsaw puzzle, because the prosecution has to prove the motive of the crime and is generally required to produce the weapon before the court. Apart from cases like rape and other sexual attacks, a matching DNA profile would only mean that the accused was present at the spot of crime. DNA can be contaminated also and even misused. In 1992, a Canadian doctor successfully evaded arrest by implanting a drain in his arm which was filled by another person's blood. The doctor was accused of raping his patients, but his DNA never matched the crime scene sample. He was finally arrested after persistent appeals from the victim. DNA samples are also used to exonerate several people including some death row inmates who were wrongly sentenced by the courts.

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P9

PM to open Science Congress, meet features 6 Nobel laureates

Chennai: The biggest jamboree of Indian science opens in Chennai on Monday with more than 7,500 scientists, including six Nobel laureates, from across the world in attendance.

The Indian Science Congress at SRM University, to be inaugurated by PM Manmohan Singh, will be the 98th held in India uninterrupted during war, peace and everything in between since 1914. Established on the lines of the British model of Conference on the Advancement of Science, the first congress was held in January 1914 at the Asiatic Society in Calcutta with 150 scientists both from India and abroad. Chennai will be hosting the congress for the seventh time, 12 years after the last one here in 1999.

"We expect around 10,000 participants, making it the largest such gathering in 98 years of its existence. It took us 18 months to prepare for the event at a cost of Rs 12 crore," SRM University vice chancellor P Sathyanarayanan said.

The congress has always been inaugurated on Jan 3 by the PM and chaired by the CM of the host state. However, on Monday, deputy CM MK Stalin will chair the event. TNN

Times of India ND 03/01/2011 P3

Teach India's initiative to impart job skills to youth makes volunteers look beyond conventional teaching methods

Trained to teach, these volunteers are innovating to shape up lives

TIMES NEWS NETWORK

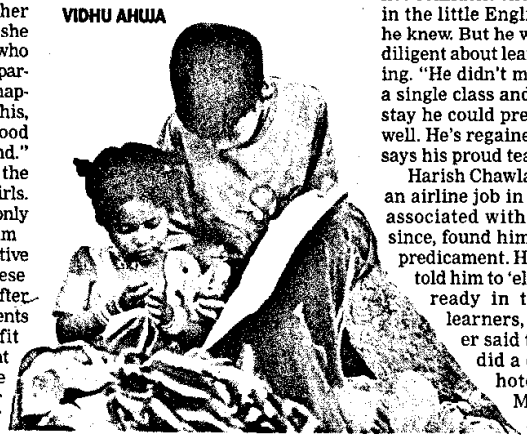
Vidhu Ahuja has been sacrificing her lunch break. She teaches English at a language institute from 7am till 11am and another batch across town in Kamala Nagar from 3pm. In between, she goes over to Shahabad Dairy in Rohini to take spoken English classes for youth aged between 18 and 32. Part of The Times of India's Teach India initiative, these classes, geared towards increasing the employability of the candidates, are being held from November 10 to February 10. They are supported by NGOs and an army of around 200 volunteers, like Ahuja, from varied backgrounds.

The volunteers have their own stories of teaching and learning to tell. A seven-day training session in October taught them the basics; for the rest, they are free to innovate. Whoever strays into Hindi in Ahuja's class, for instance, has to dance. One girl in my class is very weak. She dances the most, says Ahuja. Music bhangra-type is supplied by her mobile phone. But it's not just about English. Another girl, about 20, wants to know how she can avoid getting married. Ahuja, who is 26 and has been trying to get her parents off her back on the issue, is happy to offer some tips. "If she does this, she can get a good job with a good salary and, maybe, a better husband."

Getting a good job, at least in the market, is not on the agenda for girls. Mala Jolly is teaching at a women-only class in the pre-dominantly Muslim Hauz Rani. Coming from conservative families, it is unlikely any of these women will be looking for a job after the course, says Jolly. But her students will probably find ways to benefit from the classes anyway. They might start letter-writing units at home or upgrade their tailoring shops or beauty parlours, says a member of the NGO that is running the classes.

Anubhuti Vajpeyi, 40, renders her service at a place that is essentially a rehabilitation centre for people with addictions. "When I entered the first time, I was scared," she says with a smile. That fear conquered, she likes what she does. I know each one's background, how many siblings they have, what their parents do. I also keep counselling them about their future," she says. One of her pupils, Rajat, had come down from Ambala for help with his brown-sugar addiction and took English classes while he recovered. At 27, he had an Australian wife, but did not know enough English to sustain a conversation with her. Crippled by his addiction, he was not confident enough to even speak in the little English he knew. But he was diligent about learning. "He didn't miss a single class and by the end of his stay he could present himself very well. He's regained his confidence," says his proud teacher.

> WHOEVER STRAYS INTO HINDI IN MY CLASS HAS TO DANCE. ONE GIRL IN MY CLASS IS VERY WEAK. SHE DANCES THE MOST. MUSIC, BHANGRA-TYPE, IS SUPPLIED BY MY MOBILE PHONE
> VIDHU AHUJA



MAKING A DIFFERENCE: The Teach India programme is supported by NGOs and an army of around 200 volunteers

Harish Chawla, who retired from an airline job in 2008 and has been associated with Teach India ever since, found himself in a different predicament. His training module told him to 'elicit' the English already in the minds of the learners, but that was easier said than done. Chawla did a course on making hotel reservations. Most of his class had never seen the inside of a hotel. He drove them to one and with the help of the staff, conducted a tour. "Their exposure is so poor, we have to start from scratch," he says. But he understands. As an 18-year-old, Chawla had a family depending on him. "We'd have chapatti but no vegetables to eat it with," he recalls. He identifies with his pupils. "My students are from the same background. I can relate to them," he states. After graduating in commerce from DU, Chawla had landed a job at a Delhi disco where diplomats from different countries poured in for western music in the evenings. "I found I spoke better English than some of them. Listening to them broke my inhibition and I started speaking English," he recalls.

(Some names have been changed on request)

TEACH INDIA

Times of India ND 03/01/2011 P11

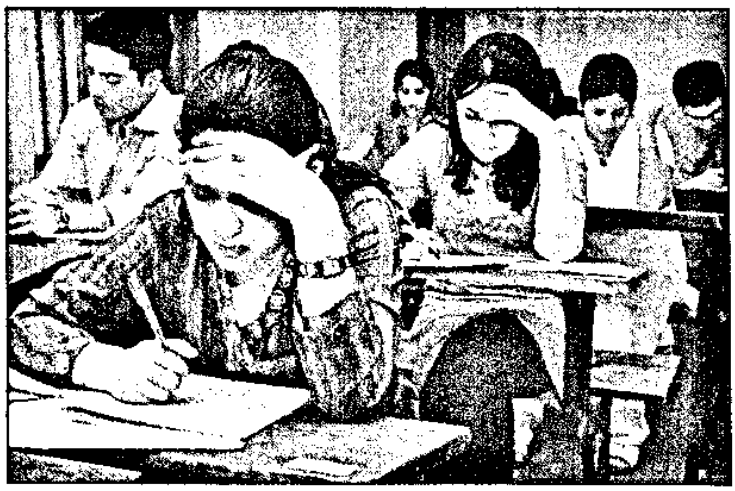
'National entrance test sole entry point for MBBS course'

MCI Circular Also Makes Maths Marks In XII Boards A Factor

A Subramani | TNN

Chennai: In a controversial move, the Medical Council of India (MCI) has issued a notification making the 'National Eligibility-cum-Entrance Test' (NEET) the sole qualification for MBBS courses as well as post-graduate medical admissions in all medical colleges across the country. The notification dated December 21 has stated that henceforth marks obtained in mathematics at the Plus Two level, too, would be considered for admission to the MBBS course.

An all-India as well as a state-wise merit list of candidates should be prepared on the basis of the marks obtained in the NEET, the notification stipulated, adding that the minimum marks in NEET for admission to an MBBS course would be 50%. It would be, however, 40% for SC, ST and OBC candidates, and 45% for disabled persons. "No candidate, who has failed to obtain the minimum eligibility marks shall be admitted to MBBS course in the academic year (concerned)," the notification states. The notice, however, doesn't specify the minimum marks required to appear for NEET.



TOUGH ROAD AHEAD? The minimum marks in NEET for admission to MBBS to be 50% and 40% for SC, ST and OBC candidates

Reservation of seats shall be as per the laws prevailing in the states/union territories concerned, it said, adding that minimum marks could be lowered in case sufficient number of candidates are not available from reserved categories.

The notification said it was being issued with the "previous approval of the central government". What is most controversial about the notification is the fact that the NEET had been made the sole admission criterion for 'all' admissions, including those being offered by unaided minority/non-minority institutions.

Already, the All India Medical Association (AIMA) has shot off a letter to the union health ministry crying foul. The AIMA president, Deen Dayal Naidu, has said that the MCI Board had exceeded its brief in notifying the NEET when the matter was still pending before the Supreme Court. The plan for the common entrance test has been opposed in the apex court by some states as well as associations of unaided colleges.

"None of the 13 expressly defined roles of the MCI, as found in clause 33 of the Regulations, empowers the MCI to dabble with the admission procedure," said Naidu.

According to Dr Naidu, neither the Union health ministry nor the Union Cabinet had been taken into confidence by the MCI. AL Somayaji, senior advocate and former additional advocate-general of Tamil Nadu, said the NEET was an "unreasonable restriction" on unaided educational institutions and it directly interferes with the rights of such institutions.

Times of India ND 03/01/2011 P13

Tech vision: Smart computers that keep a watch over you

Modern systems observe your every move — even expressions — and respond accordingly

Steve Lohr

A computer-vision system can watch a hospital room and remind doctors and nurses to wash their hands, or warn of restless patients who are in danger of falling out of bed. It can, through a computer-equipped mirror, read a man's face to detect his heart rate and other vital signs. It can analyze a woman's expressions as she watches a movie trailer or shops online, and help marketers tailor their offerings accordingly. Computer vision can also be used at shopping malls, schoolyards, subway platforms, office complexes and stadiums.

All of which could be helpful — or alarming.

"Machines will definitely be able to observe us and understand us better," said Hartmut Neven, a computer scientist and vision expert at Google. "Where that leads is uncertain."

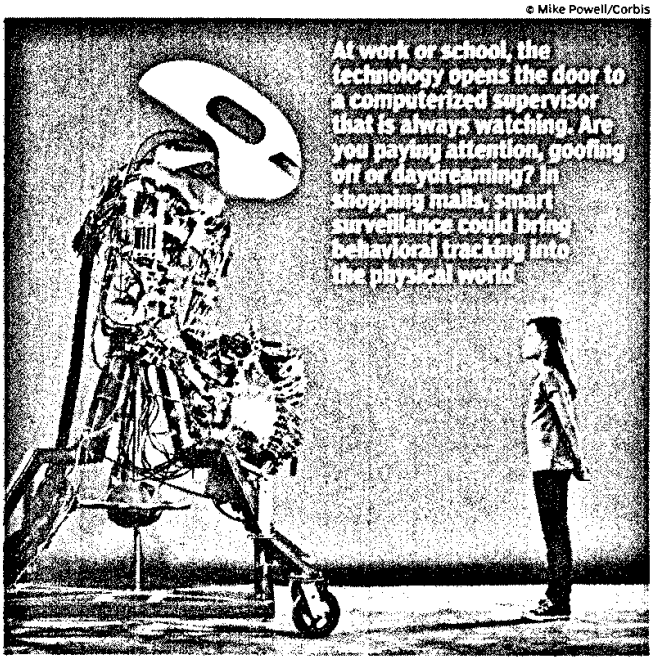
Google has been both at the forefront of the technology's development and a source of the anxiety surrounding it. Its Street View service, which lets internet users zoom in from above on a particular location, faced privacy complaints. Google will blur out people's homes at their request.

Google has also introduced an application called Goggles, which allows people to take a picture with a smartphone and search the internet for matching images. The company's executives decided to exclude a facial-recognition feature, which they feared might be used to find personal information on people who did not know that they were being photographed.

Despite such qualms, computer vision is moving into the mainstream. With this technological evolution, scientists predict, people will increasingly be surrounded by machines that can not only see but also reason about what they are seeing, in their own limited way.

The uses, noted Frances Scott, an expert in surveillance technologies at the National Institute of Justice, could allow the authorities to spot a terrorist, identify a lost child or locate an Alzheimer's patient who has wandered off. The future of law enforcement, national security and military operations will most likely rely on observant machines. A few months ago, the Defense Advanced Research Projects Agency, the Pentagon's research arm, awarded the first round of grants in a five-year research program called the

© Mike Powell/Corbis



Mind's Eye. Its goal is to develop machines that can recognize, analyse and communicate what they see. Mounted on small robots or drones, these smart machines could replace human scouts. "These things, in a sense, could be team members," said James Donlon, the project's manager.

Millions of people now use products that show the progress that has been made in computer vision. In the last two years, the major online photo-sharing services — Picasa by Google, Windows Live Photo Gallery by Microsoft, Flickr by Yahoo and iPhoto by Apple — have all started using face recognition. A user puts a name to a face, and the service finds matches in other photographs. It is a popular tool for finding and organizing pictures.

Kinect, an add-on to Microsoft's Xbox 360 gaming console, is a striking advance for computer vision in the marketplace. It uses a digital camera and sensors to recognize people and gestures; it also understands voice commands. Players control the computer with waves of the hand, and then move to make their on-screen animated stand-ins — known as avatars — run, jump, swing and dance. Since Kinect was introduced in November, game reviewers have applauded, and sales are surging.

'Please Wash Your Hands'

A nurse walks into a hospital room while scanning a clipboard. She greets the patient and washes her hands. She checks and records his heart rate and blood pressure, adjusts the intravenous drip, turns him over to look for bed sores, then heads for the door but does not wash her hands again, as protocol requires. "Pardon the interruption," declares a recorded women's voice, with a slight British accent. "Please wash your hands."

Three months ago, Bassett Medical Center in Cooperstown, NY, began an experiment with computer vision in a single hospital room. Three small cameras, mounted inconspicuously on the ceiling, monitor movements in Room 542, in a special care unit where patients are treated for conditions like severe pneumonia, heart attacks and strokes. The cameras track people going in and out of the room as well as the patient's movements in bed.

The first applications of the system, designed by scientists at General Electric, are immediate reminders and alerts. Doctors and nurses are supposed to wash their hands before and after touching a patient; lapses contribute significantly to hospital-acquired infections, research shows.

The camera over the bed delivers images to software that is programmed to recognize movements that indicate when a patient is in danger of falling out of bed. The system would send an alert to a nearby nurse. If the results at Bassett prove to be encouraging, more features can be added, like software that analyses facial expressions for signs of severe pain, the onset of delirium or other hints of distress, said Kunter Akbay, a GE scientist.

Mirror, Mirror

Daniel J. McDuff, a graduate student, stood in front of a mirror at the Massachusetts Institute of Technology's Media Lab. After 20 seconds or so, a figure — 65, the number of times his heart was beating per minute — appeared at the mirror's bottom. Behind the two-way mirror was a web camera, which fed images of McDuff to a computer whose software could track the blood flow in his face.

The software separates the video images into three channels — for the basic colors red, green and blue. Changes to the colors and to movements made by tiny contractions and expansions in blood vessels in the face are, of course, not apparent to the human eye, but the computer can see them.

"Your heart-rate signal is in your face," said Ming-zher Poh, an MIT student. Other vital signs, including breathing rate, blood-oxygen level and blood pressure, should leave similar color and movement clues.

Darker Possibilities

Rosalind Picard, a professor at MIT, enunciates a principled stance, but one that could become problematic in other hands. At work or school, the technology opens the door to a computerized supervisor that is always watching. Are you paying attention, goofing off or daydreaming? In stores and shopping malls, smart surveillance could bring behavioral tracking into the physical world.

More subtle could be the effect of a person knowing that he is being watched — and how that awareness changes his thinking and actions. It could be beneficial: a person thinks twice and a crime goes uncommitted. But might it also lead to a society that is less spontaneous, less creative, less innovative? "With every technology, there is a dark side," said Hany Farid, a computer scientist. "Sometimes you can predict it, but often you can't." NYT NEWS SERVICE

Times of India ND
03/01/2011 P13

More than 1,000 dead birds fall from sky in Arkansas

Wildlife officials are trying to determine what caused more than 1,000 black birds to die and fall from the sky over an Arkansas town. The Arkansas Game and Fish Commission said on Saturday that it began receiving reports about the dead birds about 11:30 p.m. on Friday night. The birds fell over a 1-mile area of Beebe, and an aerial survey indicated that no other dead birds were found outside of that area. Commission ornithologist Karen Rowe said the the birds showed physical trauma, and she speculated that "the flock could have been hit by lightning or high-altitude hail."

Bird flu confirmed in S Korea wild duck:

One of five wild ducks found dead in South Korea this week was confirmed on Saturday to have been infected with a lethal strain of the bird flu virus as the country battles its first outbreak in over two years. Tests showed one of the five dead birds found in Sacheon City on December 26 had been stricken with the H5N1 virus, the agriculture ministry said in a statement. The same strain — which poses a risk to humans — has also been detected in wild birds and their faeces at four other locations across the country since December 7, it said.

Alcoholism in genes raises obesity risk:

People with a family history of alcoholism may be turning to high-calorie treats instead of booze to satisfy their addiction, US researchers say, a change that could be fueling the obesity epidemic. Because alcohol and bingeing on junk foods stimulate the same parts of the brain, it may be that people with a predisposition to alcoholism are replacing alcohol with junk foods, says the team from Washington University in St. Louis. This is especially true for women, they said.

Sleep apnea device eases fatigue:

People with breathing problems that disrupt their sleep were less tired after three weeks of treatment with a breathing device compared to those treated with a placebo, US researchers said on Saturday. The findings show that regular use of treatment with continuous positive airway pressure masks reduces fatigue caused by obstructive sleep apnea, a chronic disorder that affects 12 million Americans. Sleep apnea raises the risk of high blood pressure, heart attack, stroke, irregular heartbeat and diabetes.

Times of India ND
03/01/2011 P13

New gadget helps zero in on snipers

The detector's acoustic processing technology evaluates the enemy position by determining the target's co-ordinates

London: British defence scientists have developed what they claim is a revolutionary new gadget which can help soldiers pinpoint the exact position of enemy snipers 1,000 yards away.

A team at Defence Science and Technology Laboratory in Wiltshire has developed the tiny computerized "sniper spotter" which would be trialled this month with the Parachute Regiment in war-ravaged Afghanistan, the 'Daily Mail' reported.

The new high-tech gadget — four inches square and weighing 300 grams — can be worn on a soldier's arm; it's connected to a shoulder sensor which identifies the shooter's location in an instant, thus enabling troops to fire back accurately.

The detector's powerful acoustic processing technology evaluates the enemy position by determining the target's co-ordinates on a small screen with an arrow indicator. At the same time, it bleeps a warning into a headset connected to it, say the scientists.

Sources say each unit — officially known as Compact Soldier Worn Shooter-Detector System — costs £10,000.

An initial 1,000 have been ordered for British troops in Afghanistan's Helmand province. If trials are successful, more soldiers will be issued with it later this year, say the defence sources.

The way the technology works is a closely guarded secret, but the unique software provides constant updates on the enemy's location — even if they move position while being fired at, they say.

A senior source said: "This bit of kit could be a life-saver. An earlier, larger model was used by US forces in Iraq and in parts of Afghanistan, but this is a first for us and it is being seen as revolutionary. "It works on acoustics and when a round is fired the small display panel highlights an arrow indicating the direction of fire, which is a major help in returning fast and accurate fire." PTI

Times of India ND 03/01/2011 P15

When innovation, too, is made in China

Beijing Looking To Build An Economy Based On New Ideas By 2015

Steve Lohr

As a national strategy, China is trying to build an economy that relies on innovation rather than imitation. Clearly, its leaders recognize that being the world's low-cost workshop for assembling the breakthrough products designed elsewhere — think iPads and a host of other high-tech goods — has its limits.

So can China become a prodigious inventor? The answer, in truth, will play out over decades — and go a long way toward determining not only China's future, but also the shape of the global economy. Clues to the Chinese approach emerge from a recent government document containing goals for drastically increasing the nation's production of patents. It offers a telling glimpse of how China intends to engineer a more innovative society.

AFP

MODEL CITIZENS: People play on a frozen lake at Shichahai near the Drum Tower in central Beijing on Sunday

The document, published in November by the State Intellectual Property Office of China, is called the "National Patent Development Strategy (2011-2020)." It discusses broad economic objectives as well as specific targets to be attained by 2015.

In a recent interview, David J Kappos, director of the United States Patent and Trademark Office, pointed to the Chinese targets for 2015 and called them "mind-blowing numbers."

According to a translation of the document provided by the patent office, China's goal for annual patent filings by 2015 is two million. That number includes "utility-model patents," which typically cover items like engineering features in a product and are less ambitious than "invention patents." In the American system, there are no utility patents.

In 2009, about 300,000 applications for utility patents were filed in China, roughly equal to its total of invention patents, which have been growing slightly faster than utility filings in recent years. But even if just half of China's total filings in 2015 are for invention patents, the national plan calls for a huge leap, to one million, by 2015. By contrast, patent filings in the United States totaled slightly more than 480,000 in the 12 months ended in September, according to the patent office.

China's patent surge has been evident for years. In October, Thomson Reuters issued a research report, forecasting that China would surpass the United States in patent filings in 2011. "It's happening even faster than we expected," said Bob Stembridge, an intellectual-property analyst at Thomson Reuters. Yet if the trend is not surprising, the ambition of the Chinese plan is striking. The document indicates, for example, that China intends to roughly double its number of patent examiners, to 9,000, by 2015.

China also wants to double the number of patents that its residents and companies file in other countries. Recent Chinese filings in the United States, Mr. Kappos says, are mainly in fields that China has declared priorities for industrial strategy, including solar and wind energy, information technology and telecommunications, and battery and manufacturing technologies for automobiles. NYT NEWS SERVICE

Times of India ND 03/01/2011 P17

Ranjan Pai's Manipal Universal may be looking at $200m IPO

Top-tier MNC and domestic investment banks have made a pitch to lead the much anticipated initial public offering of the Ranjan Pai-led Manipal Universal Learning in 2011. The company, a cross-border Indian education enterprise and part of the Manipal Education and Medical Group, could be looking at over $200 million public offer with valuation topping $2 billion. In November last year, TOI reported that Manipal Universal was concluding a pre-IPO placement with Infosys co-founder NR Narayana Murthy's venture fund Catamaran. Wipro boss Azim Premji's private equity fund is already an investor in the company, which is banking on the huge market appetite for pedigree and scalable education assets that are in short supply.

Times of India ND
03/01/2011 P-1 ET

A step towards liberalisation

Proyashi Barua/TNN

THE year 2011 envisages a landmark change in the sphere of India's professional higher education system. Kapil Sibal, union HRD (Human Resource Development) minister has recently announced his decision to liberalise the professional education system by allowing corporate entities under the Sections 25 of Companies Act, to set up AICTE (All India Council of Technical Education) approved programmes in engineering and management.

"These changes were much needed and long due," says Amit Mitra, secretary general, FICCI (Federation of Indian Chambers of Commerce and Industry).

"The fact that institutes imparting AICTE approved technical education are lacking in 241 districts of India has been a matter of grave concern for quite some time. This in turn is translating to a serious deficit of human capital in these districts — a truth that is disconcerting in terms of India's quest for a knowledge economy. But now things shall change. The government has specifically announced that it will facilitate the establishment of AICTE approved technical institutions in these areas under the Public Private Partnership (PPP) mode in the BOT (Build Operate and Transfer) format. These are revolutionary policy changes. Hopefully there will now be an incremental increase in terms of skilled manpower that in turn shall help India to achieve its targeted nine to 10% GDP growth. FICCI would be happy to work with the government to develop an appropriate template for public-private partnership," explains Mitra.

Also, the new policy will spur inclusion of meritorious students who are economically disadvantaged through the scholarship route vis-a-vis the 5% reservation criteria for such students.

According to Mitra, liberalisation of the professional education sector would mean better governance and higher quality of teaching. "Corporate entities have to demonstrate a high degree of professional credibility in order to register under the Sections 25 of Companies Act. Moreover, these companies are governed by a sacrosanct code of conduct and ethics. Hence, better governance would naturally accrue to the educational institutions that these companies set up," observes Mitra.

Talking about quality he continues, "The assurance of quality that comes with this move of liberalisation can best be understood in the context of ISB (Indian School of Business). It is the only Indian B-school to have been ranked among the top 20 B-schools of the world. A private entity and without the requisite AICTE approvals, ISB was subject to speculation in its initial years by the then ruling HRD ministry. But the way ISB proved its detractors wrong is now common knowledge." On the other hand, Mitra adds that many AICTE approved colleges have been derecognised by the present government within the last year-and-a-half.

Times of India ND 03/01/2011 P-1 ET

Stay connected

MORE AND MORE EDUCATIONAL INSTITUTES ARE USING WEB 2.0 TECHNIQUES TO BUILD A STRONG NETWORK WITH THE WORLD OUTSIDE. NEHA BHATIA REPORTS

VARIOUS universities and educational institutes have taken to Web 2.0 techniques to stay connected with students, teachers, alumni and the world.

Today, almost all universities, officially or unofficially, are part of the World Wide Web. For instance, though Jamia Millia Islamia (JMI) does not have an official presence on social networking sites, many of their departments have a considerable share on the web. Online communities like Jamia Live, which shares university-updates, and Jamia Alumni community are common on Facebook and Twitter. Not only students, but professors too are active when it comes to posting university updates on these sites. Roomi F Naqvi, department of English, JMI, feels that universities are still intimidated by technology, but that they should adopt a pro-active approach towards social networking, as is done in the West.

He adds, "Being online is in the interest of the universities. Not only does it help in bonding with the existing students, but gives prospective students an overview as well. In fact, universities should plan to have open courseware which can be accessible to students from across the world." Naqvi himself has some 31,000 followers on Twitter and tweets regularly to motivate and guide students.

NEW TRENDS

Delhi University too is not left untouched with the online bug. University departments, individual colleges as well as popular societies have a strong and live presence on the internet. Online communities of Ramjas College, Kirori Mal College, Hindu College and Lady Shri Ram College for Women (LSR) have a large number of followers on Facebook. The moment a new online committee is formed or a fest is planned, an online message is sent out through twitter or Facebook. Students are also uploading photographs of college activities and fests on flickr to share with the campus.

Today, most universities, officially or unofficially, are part of the World Wide Web

Even on youtube, institutes have personalised videos to guide students with real-time information. Taking a step forward in this direction, the seven IITs along with IISc Bangalore have started the National Programme on Technology Enhanced Learning (NPTEL) as a collaborative project where, through a channel on youtube, students can share lectures on varied topics by eminent professors. The channel has a subscription-base of around 57,145 members.

REACHING OUT

With just two months into the virtual world, Delhi Technological University (DTU) already has ardent followers on twitter. Talking more about their initiative to connect with a wider audience, Ruchika Malhotra, lecturer, faculty of software engineering, DTU, shares, "The DTU account gets over 200 hits everyday from both India and abroad. Apart from current students of the university, faculty, staff, media and the alumni, even prospective students of DTU are finding this to be useful. The updates on twitter have been largely related to students and faculty achievements, upcoming events/ seminars, job opportunities, etc."

Vishal Verma, assistant professor, faculty of electrical engineering, DTU, adds, "It will be particularly useful at the time of admissions when regular updates will be uploaded on the twitter account." The university also plans to link the twitter account to the official website soon so that more people can get connected through it.

Response to online initiatives of the Faculty of Management Studies too has been encouraging. At FMS, a student-run body ensures a strong presence in the virtual world. Shankar Rao, a member of the body shares, "We have almost 1,250 users on Twitter and around 800 users on Facebook. Within a short span of time, we have hit decent numbers. Since FMS Delhi is one of the oldest B-schools in the country and has a sizeable and distinguished alumni network, we expect the numbers to grow in the near future. After all, social networking media is a convenient and good way of keeping the alumni updated about their alma mater."

Times of India ND 03/01/2011 P-2 ET

RETHINKING CURRICULUM

Proyashi Barua/TNN

Sivaji Chakravorti

ENGINEERS today have to constantly contend with the demands and challenges of a rapidly changing, increasingly high-tech and global environment. "Hence, today's engineering education should be such that while on one hand students are provided with scientific and engineering knowledge in their chosen technical areas, on the other hand they are exposed to a broader interdisciplinary and cultural education," says, Sivaji Chakravorti, chair of IEEE (Institute of Electrical and Electronics Engineers), Power and Energy Society Chapter (2010). He explains, "On one side, engineering education is science and on the other side it is society. Engineering education should be the focal point where science meets society. An engineer should be capable of using advances in scientific knowledge to meet the needs of society and improve the quality of life for people wherever he/she works. Today, engineering education must produce 'global engineers', i.e. engineers who are globally competent and locally relevant."

The state of engineering education in India has to be understood in the broader context of the country's education system. "The conventional education system of India paid more attention to writing and theoretical research ability. Practical abilities that have a basis in real world situations were often undermined or simply not adequately emphasised," says Chakravorti. Talking about specific changes to be brought about in engineering curricula, he continues, "The curriculum should be revised with a focus on solving multi-faceted issues. It is necessary to introduce cross-field study and cutting-edge subjects in science and engineering. Students should be given more self-study time and allowed to spend more time in library and practical work. Moreover, since engineers today work in environments that are global and multicultural it is important for them to be able to comprehend foreign cultures and languages. Hence, it is important to have some foreign language classes through which students can hone their practical hearing, speaking, listening and writing skills." According to Chakravorti, traditional design courses should be revised to reality engineering design and production process courses and should integrate mechanical, electrical and electronic designs. "The objective should be to enhance the abilities of students in terms of application, research and comprehensive analysis. International students exchange programmes should also be encouraged as these programmes provide students with an opportunity to understand diversity of culture, technology and design concepts," he shares.

TODAY WE NEED ENGINEERS WHO ARE GLOBALLY COMPETENT AND LOCALLY RELEVANT

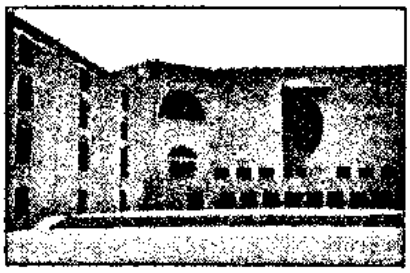
Ganesh Chandra

Talking about specific engineering subjects that need to be taught in an interdisciplinary context, Chakravorti says, "Some of the key subjects include energy, environmental sustainability, food supply, healthcare and disease, clean water and security. Although these challenges cannot be solved by engineers alone, engineers must play an important role in finding the solutions that are economically viable and socially relevant."

Economic Times ND P-6
3/01/2011

IIM-A to design curriculum for Assam's university

Bikash Singh
GUWAHATI



INDIAN Institute of Management (IIM), Ahmedabad will design the curriculum of the Rajiv Gandhi University of Co-operative Management in Assam. The state government is setting up a first of its kind co-operative management university on a 250-bigha plot in Sibsagar district of Upper Assam.

The state government will soon ink an MoU with IIM Ahmedabad for devising the course of the university. Assam chief minister Tarun Gogoi, on Saturday, said that a team of professors from the IIM visited Assam recently and has discussed the various types of management courses that can be offered by the university.

He informed, "This university will strengthen co-operative movements in the region. New courses will be introduced. We will also set up a Small and Marginal Farmers Development Corporation to provide incentives and skill upgradation."

In the election year 2011, Gogoi announced a slew of schemes. He added that the state government will set up a rehabilitation authority for erosion-affected people. "As Arunachal Pradesh is opposing setting up of a Northeastern Water Resources Authority (NEWRA), we have decided to set up the Assam Water Resources Management Authority for taming the annual floods in the state.

The Union Cabinet has approved the construction of Dhubri-Phulbari Bridge over river Brahmaputra."

The chief minister also announced the setting up of a new Employment Generation and Skill Development Corporation and creation of 15 new sub-divisions.

The state government has decided to set up old age and orphan homes in all district headquarters, while a special care home will be established for HIV-affected children.

Economic Times ND 03/01/2011
P-15

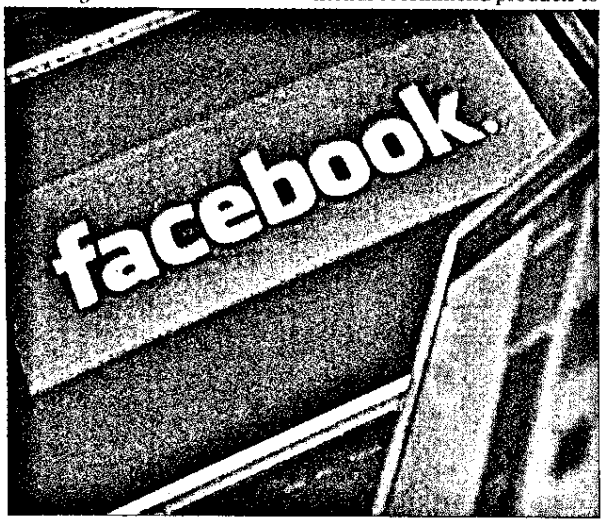
Facebook pips Google in US web site visits

Gets 8.9% Traffic v/s Google's 7.2%

Bloomberg
NEW YORK

Facebook Inc surpassed Google Inc. as the most visited website in the US this year, spotlighting the rapid ascendance of social networking over search engines and Internet portals.

Facebook received 8.9% of all US web visits between January and November 2010, according to New York-based Internet tracker Experian Hitwise. Google's main site was second with 7.2%, followed by Yahoo! Inc.'s Mail service, Yahoo's Web portal and Google's YouTube.



Facebook, founded by 26-year-old Mark Zuckerberg in 2004, has more than 500 million users and commands a valuation of more than $40 billion on exchanges for privately held companies. The site's leadership in social networking has attracted advertisers such as Coca-Cola Co and JPMorgan Chase & Co, letting Facebook reach sales of about $2 billion this year, according to people familiar with the matter.

"Facebook could be a bigger IPO than Google," said Tom Taulli, an independent researcher on initial public offerings. "If I'm Google, I'm concerned. If Facebook is becoming the gateway to the Web, that's going to be trouble for Google, in terms of ad revenues and growth potential."

Facebook first topped Google on a week-to-week basis in March and has maintained its lead throughout the year. The Palo Alto, California-based company enticed more users by adding games, revamping its news feed, improving chat features and offering more security options. The next step for the company is to increase its e-commerce partnerships so that friends recommend products to one another in a more sophisticated manner, Taulli said.

Even though Mountain View, California-based Google serves 1 billion users each week, it "doesn't have a cohesive social network where users communicate with each other," he said.

Google was the most visited site in the US in 2008 and 2009, and it still holds the top position when accounting for all of the company's sites, including the YouTube video site.

While Google remains the most popular search engine, Facebook has bragging rights in that area as well: It was the most-searched term for the second consecutive year, Hitwise said.

Economic Times ND 03/01/2011 P-15

Computers that see you, read you and even tell you to wash

Steve Lohr

Hundreds of correctional officers from prisons across America descended last spring on a shuttered penitentiary in West Virginia for annual training exercises.

Some officers played the role of prisoners, acting like gang members and stirring up trouble, including a mock riot. The latest in prison gear got a workout – body armor, shields, riot helmets, smoke bombs, gas masks. And, at this particular drill, computers that could see the action.

Perched above the prison yard, five cameras tracked the play-acting prisoners, and artificial-intelligence software analyzed the images to recognize faces, gestures and patterns of group behavior. When two groups of inmates moved toward each other, the experimental computer system sent an alert – a text message – to a corrections officer that warned of a potential incident and gave the location.

The computers cannot do anything more than officers who constantly watch surveillance monitors under ideal conditions. But in practice, officers are often distracted. When shifts change, an observation that is worth passing along may be forgotten. But machines do not blink or forget. They are tireless assistants.

The enthusiasm for such systems extends well beyond the nation's prisons. High-resolution, low-cost cameras are proliferating, found in everyday products like smart phones and laptop computers. The cost of storing images is dropping, and new software algorithms for mining, matching and scrutinizing the flood of visual data are progressing swiftly.

A computer-vision system can watch a hospital room and remind doctors and nurses to wash their hands, or warn of restless patients who are in danger of falling out of bed. It can, through a computer-equipped mirror, read a man's face to detect his heart rate and other vital signs. It can analyze a woman's expressions as she watches a movie trailer or shops online, and help marketers tailor their offerings accordingly. Computer vision can also be used at shopping malls, schoolyards, subway platforms, office complexes and stadiums.

All of which could be helpful – or alarming. "Machines will definitely be able to observe us and understand us better," said Hartmut Neven, a computer scientist and vision expert at Google. "Where that leads is uncertain."

Google has been both at the forefront of the technology's development and a source of the anxiety surrounding it. Its Street View service, which lets Internet users zoom in from above on a particular location, faced privacy complaints. Google will blur out people's homes at their request.

Google has also introduced an application called Goggles, which allows people to take a picture with a smart phone and search the Internet for matching images. The company's executives decided to exclude a facial-recognition feature, which they feared might be used to find personal information on people who did not know that they were being photographed. Despite such qualms, computer vision is moving into the mainstream. With this technological evolution, scientists predict, people will increasingly be surrounded by machines that can not only see but also reason about what they are seeing, in their own limited way.

The uses, noted Frances Scott, an expert in surveillance technologies at the National Institute of Justice, the Justice Department's research agency, could allow the authorities to spot a terrorist, identify a lost child or locate an Alzheimer's patient who has wandered off.

The future of law enforcement, national security and military operations will most likely rely on observant machines. A few months ago, the Defense Advanced Research Projects Agency, the Pentagon's research arm, awarded the first round of grants in a five-year research program called the Mind's Eye. Its goal is to develop machines that can recognize, analyze and communicate what they see. Mounted on small robots or drones, these smart machines could replace human scouts.

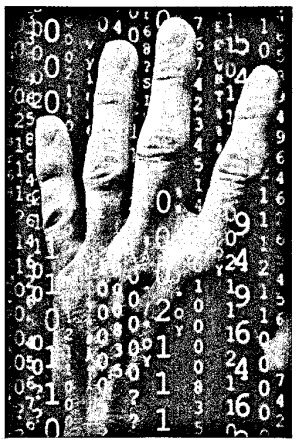
"These things, in a sense, could be team members," said James Donlon, the program's manager.

Millions of people now use products that show the progress that has been made in computer vision. In the last two years, the major online photo-sharing services – Picasa by Google, Windows Live Photo Gallery by Microsoft, Flickr by Yahoo and iPhoto by Apple – have all started using face recognition. A user puts a name to a face, and the service finds matches in other photographs. It is a popular tool for finding and organizing pictures.

Kinect, an add-on to Microsoft's Xbox 360 gaming console, is a striking advance for computer vision in the marketplace. It uses a digital camera and sensors to recognize people and gestures; it also understands voice commands. Players control the computer with waves of the hand and then move to make their on-screen animated stand-ins – known as avatars – run, jump, swing and dance. Since Kinect was introduced in November, game reviewers have applauded, and sales are surging. To Microsoft, Kinect is not just a game, but a step toward the future of computing. "It's a world where technology more fundamentally understands you, so you don't have to understand it," said Alex Kipman, an engineer on the team that designed Kinect.

WASH YOUR HANDS

A nurse walks into a hospital room while scanning a clipboard. She greets the patient and washes her hands. She checks and records his heart rate and blood pressure, adjusts the intravenous drip, turns him over to look for bed sores, then heads for the door but does not wash her hands again, as protocol requires. "Pardon the interruption," declares a recorded women's voice, with a slight British accent. "Please wash your hands."



Three months ago, Bassett Medical Center in Cooperstown, N.Y., began an experiment with computer vision in a single hospital room. Three small cameras, mounted inconspicuously on the ceiling, monitor movements in Room 542, in a special care unit (a notch below intensive care) where patients are treated for conditions like severe pneumonia, heart attacks and strokes. The cameras track people going in and out of the room as well as the patient's movements in bed.

The first applications of the system, designed by scientists at General Electric, are immediate reminders and alerts. Doctors and nurses are supposed to wash their hands before and after touching a patient; lapses contribute significantly to hospital-acquired infections, research shows.

The camera over the bed delivers images to software that is programmed to recognize movements that indicate when a patient is in danger of falling out of bed. The system would send an alert to a nearby nurse. If the results at Bassett prove to be encouraging, more features can be added, like software that analyzes facial expressions for signs of severe pain, the onset of delirium or other hints of distress, said Kunter Akbay, a GE scientist.

Hospitals have an incentive to adopt tools that improve patient safety. Medicare and Medicaid are adjusting reimbursement rates to penalize hospitals that do not work to prevent falls and pressure ulcers and whose doctors and nurses do not wash their hands enough. But it is too early to say whether computer vision, like the system being tried out at Bassett, will prove to be cost-effective.

MIRROR, MIRROR

Daniel J. McDuff, a graduate student, stood in front of a mirror at the Massachusetts Institute of Technology's Media Lab. After 20 seconds or so, a figure – 65, the number of times his heart was beating per minute – appeared at the mirror's bottom. Behind the two-way mirror was a Web camera, which fed images of McDuff to a computer whose software could track the blood flow in his face.

The software separates the video images into three channels – for the basic colors red, green and blue. Changes to the colors and to movements made by tiny contractions and expansions in blood vessels in the face are, of course, not apparent to the human eye, but the computer can see them.

"Your heart-rate signal is in your face," said Mingzher Poh, an MIT graduate student. Other vital signs, including breathing rate, blood-oxygen level and blood pressure, should leave similar color and movement clues. The pulse-measuring project, described in research published in May by Poh, McDuff and Rosalind W. Picard, a professor at the lab, is just the beginning, Poh said. Computer vision and clever software, he said, make it possible to monitor humans' vital signs at a digital glance. Daily measurements can be analyzed to reveal that, for example, a person's risk of heart trouble is rising. "This can happen, and in the future it will be in mirrors," he said.

Faces can yield all sorts of information to watchful computers, and the MIT students' adviser, Picard, is a pioneer in the field, especially in the use of computing to measure and communicate emotions. For years, she and a research scientist at the university, Rana el-Kaliouby, have applied facial-expression analysis software to help young people with autism better recognize the emotional signals from others that they have such a hard time understanding.

The two women are the co-founders of Affectiva, a company in Waltham, Mass., that is beginning to market its facial-expression analysis software to manufacturers of consumer products, retailers, marketers and movie studios. Its mission is to mine consumers' emotional responses to improve the designs and marketing campaigns of products.

John Ross, chief executive of Shopper Sciences, a marketing research company that is part of the Interpublic Group, said Affectiva's technology promises to give marketers an impartial reading of the sequence of emotions that leads to a purchase, in a way that focus groups and customer surveys cannot.

"You can see and analyze how people are reacting in real time, not what they are saying later, when they are often trying to be polite," he said. The technology, he added, is more scientific and less costly than having humans look at store surveillance videos, which some retailers do.

The facial-analysis software, Ross said, could be used in store kiosks or with webcams. Shopper Sciences, he said, is testing Affectiva's software with a major retailer and an online dating service, neither of which he would name. The dating service, he said, was analyzing users' expressions in search of "trigger words" in personal profiles that people found appealing or off-putting.

WATCHING

Maria Sonin, 33, an office worker in Waltham, Mass., sat in front of a notebook computer looking at a movie trailer while Affectiva's software, through the PC's webcam, calibrated her reaction. The trailer was for "Little Fockers," starring Robert De Niro and Ben Stiller, which opened just before Christmas. The software measured her reactions by tracking movements on a couple of dozen points on her face – mostly along the eyes, eyebrows, nose and the perimeter of her lips.

To the human eye, Sonin appeared to be amused. The software agreed, said Kaliouby, though it used a finer-grained analysis, like recording that her smiles were symmetrical (signaling amusement, not embarrassment) and not smirks. The software, Kaliouby said, allows for continuous, objective measurement of viewers' response to media, and in the future will do so in large numbers on the Web.

Sonin, an unpaid volunteer, said later that she did not think about being recorded by the webcam.

"It wasn't as if it was a big camera in front of you," she said. Christopher Hamilton, a technical director of visual effects, has used specialized software to analyze facial expressions and recreate them on the screen. The films he has worked on include "King Kong," "Charlotte's Web" and "The Matrix Revolutions." Using facial-expression analysis technology to gauge the reaction of viewers, who agree to be watched, may well become a valuable tool for movie makers, said Hamilton, who is not involved with Affectiva. Today, sampling audience reaction before a movie is released typically means gathering a couple of hundred people at a preview screening. The audience members then answer questions and fill out surveys.

The software "makes it possible to measure audience response with a scene-by-scene granularity that the current survey-and-questionnaire approach cannot," Hamilton said. A director, he added, could find out, for example, that although audience members liked a movie overall, they did not like two or three scenes. Or he could learn that a particular character did not inspire the intended emotional response. Emotion-sensing software, Hamilton said, might become part of the entertainment experience – especially as more people watch movies and programs on Internet-connected televisions, computers and portable devices. Viewers could share their emotional responses with friends using recommendation systems based on what scene – say, the protagonists' dancing or a car chase – delivered the biggest emotional jolt.

New York Times News Service

Hindu ND 03/01/2011

National board of exams to be abolished

New council for paramedics to be constituted as per NCHRH Bill, 2010

Aarti Dhar

NEW DELHI: The National Board of Examinations (NBE) will be disbanded and a new council for paramedics will be constituted, as per the proposed National Commission for Human Resources for Health (NCHRH) Bill, 2010.

According to the final draft of the Bill, the National Board of Examinations, established in 1860, will be dissolved and its functions taken over by the National Board for Health Education (NBHE) to be set up under the proposed law.

The new Board will have a president, two full-time and four part-time members appointed by the Centre on the recommendations of a search-cum-selection committee.

The NBHE will promote academic studies and research in emerging areas of health education with a focus on professional health education, and ensure uniform augmentation of trained specialists and super specialists.

The draft said the Board will determine, coordinate and maintain standards for health education and research; specify minimum requirements in terms of faculty, infrastructure and clinical workload for establishment of institutions for the discipline of health; lay down curricula for examinations; design and approve new courses of study on the recommendations of the institutes, hospitals and universities; undertake faculty development programmes; specify the schedule of admission for various courses; and importantly, conduct examinations for all undergraduate, post-graduate, doctoral, post-doctoral and diploma courses, fellowship programmes and screening tests.

It will specify parameters defining the equivalence between academic qualifications granted by different health institutions in India and abroad and lay down norms and mechanisms for transparent, efficient and accountable governance in a health university or higher health educational institution.

At the same time, it will approve and notify standards of academic quality for accreditation and benchmarking of education in recognised health institutions.

The NBHE has also been vested with promotion of autonomy of health institutions to facilitate the pursuit of knowledge and innovation, development of curricular framework with specific reference to new, emerging or inter-disciplinary fields of knowledge, and taking measures to enhance access to health education.

The Bill also provides for the setting up of a paramedical council on the lines of the existing councils such as the Medical Council of India, the Dental Council of India, the Nursing Council of India and the Pharmacy Council of India.

However, the councils — at both National and State levels — will maintain registers of health professionals that will make them eligible to practice, and grant permission to those wanting to go abroad for studies or employment.

The councils will define "professional misconduct" and specify punishments for code of conduct violations.

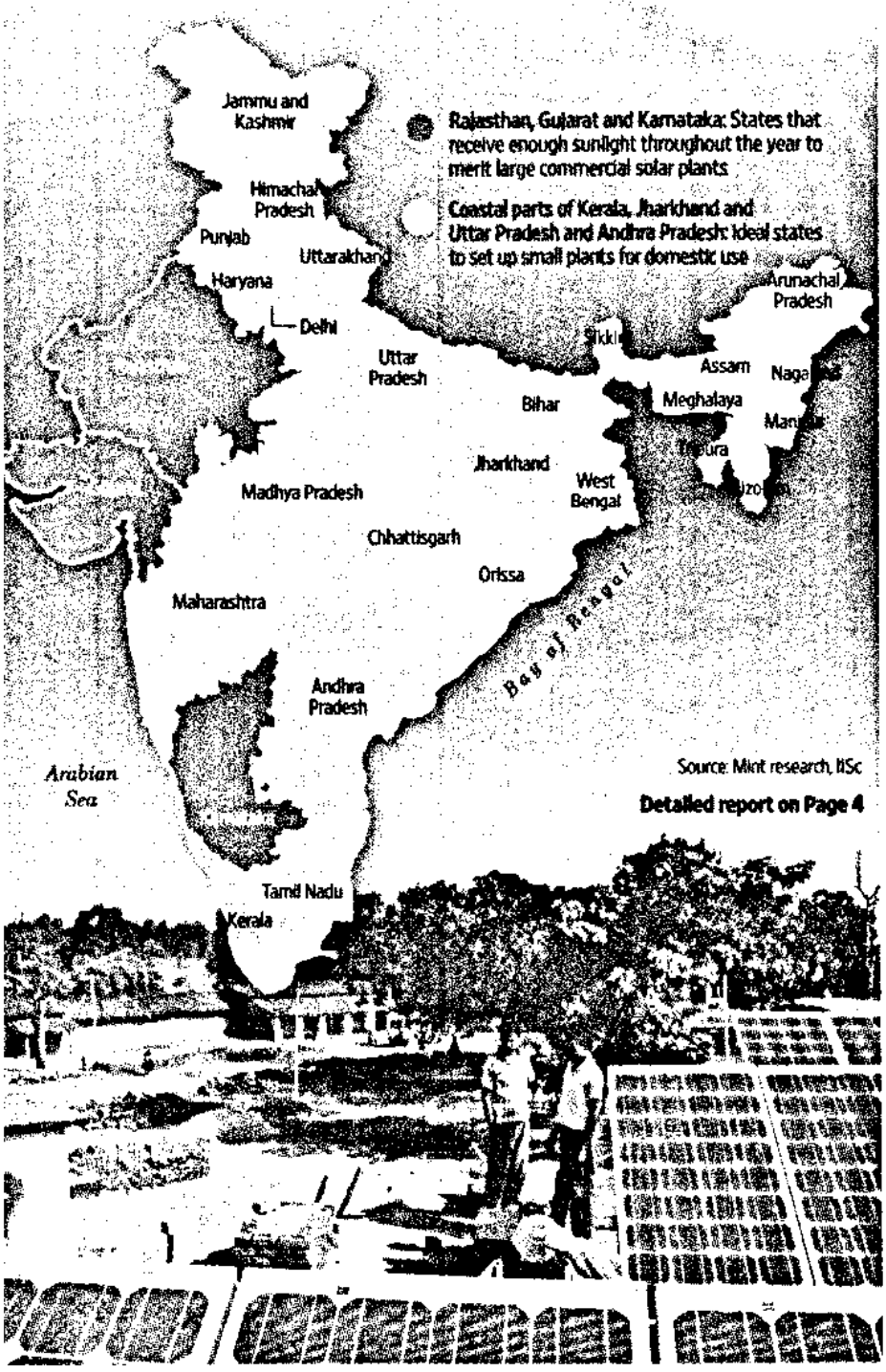
Importantly, the Centre will have the powers to supersede the NCHRH and all bodies under it, if necessary, in "public interest".

MINT ND 03/01/2011 p1

2|17| W78

STATE OF SUNSHINE

Which are the best places in India to set up solar power plants? Researchers at the Indian Institute of Science (IISc), Bangalore, are trying to answer precisely this question by mapping areas in the country where sunlight patterns would make commercial solar plans viable.



Detailed report on Page 4

MINT ND 03/01/2011 P3

Three new IIMs struggle in the absence of permanent teachers

By Prashant K. Nanda
prashant.n@livemint.com

NEW DELHI

The absence of permanent faculty is hurting the quality of education at the three Indian Institutes of Management (IIMs) that opened last year, even as the government readies to launch three more in the next academic session.

Visiting professors from other IIMs are taking virtually all classes at the IIMs in Rohtak, Ranchi and Raipur.

IIMs are India's elite business schools. Older IIMs are located in Ahmedabad, Bangalore, Kolkata, Lucknow, Indore, Kozhikode and Shillong.

"I am the only permanent faculty," said P. Rameshan, director of IIM-Rohtak which is running out of a temporary campus inside Maharshi Dayanand University in Rohtak.

All courses are being taught by visiting professors, he said. "Students have missed out the benefit of having permanent faculty, but we must say that IIM-Lucknow faculty (members) are helping a lot."

Rameshan agreed that shortage of full-time teachers is affecting the learning process as well as summer placements, which are typically handled by full-time faculty members. "The summer placement should have ended by September, but we are stretching it to the new year (January)," he said.

The institute admitted 50 students in its first batch and plans to add 120 more this year. It will need around 20 faculty members.

Rameshan said IIM-Rohtak started recruiting teachers in the last week of December. "We will not like this problem to continue and hope to recruit almost 15 faculty members."

Officials at the human resource development (HRD) ministry said the situation is similar at Ranchi and Raipur IIMs, where visiting teachers from IIM-Kolkata and IIM-Indore are making up for the faculty shortage.

IIM-Ranchi admitted 45 students in its first batch, while IIM-Raipur admitted 65. Both plan to increase the number of admissions this year.

"These institutes are just a year old as they have come up in 2010. We understand the problem they face, but hope things will improve," a ministry official said, requesting anonymity.

The official said lack of full-time teachers can be frustrating, and affects the growth of any institute.

IIM-Raipur's director B.S. Sahay did not respond to several attempts to reach him.

Shekhar Choudhury, director of IIM-Kolkata, which is handholding IIM-Ranchi, said professors from his institute had helped students of IIM-Ranchi to finish their course, as well as in summer placements.

"Yes, permanent faculty bring a lot of benefit for students, but Ranchi students will enjoy them once their own faculty join," he said.

The faculty shortage may worsen in the next academic session. The government has already announced that three more IIMs would be opened at Trichy in Tamil Nadu, Kashipur in Uttarakhand and Udaipur in Rajasthan.

Another HRD ministry official, who also did not want to be named, said instead of opening new institutes every year, the government should focus on providing adequate facilities at institutes.

"We have moved in a reverse way—first institute, then search for faculty. We should have changed the order as quality institutes need quality faculty," the official said.

Narayanan Ramaswamy, executive director at auditing and consulting firm KPMG, said while opening IIMs in new places to make them more accessible is good, lack of faculty will hamper higher education.

"Higher education is not only about teaching. Research is very important. Here, we are lagging behind because of faculty crunch. This is a key area of concern," he said.

Rameshan of IIM-Rohtak, who has earlier worked with IIM-Kozhikode and IIM-Lucknow, said he plans faculty and student exchanges with overseas institutes in 2011. "We would have our own research output," he said.

MINT ND 03/01/2011 P4

TAPPING POTENTIAL

IISc researchers map hot spots to set up solar power plants

By Bhargavi Kerur & Surabhi Agarwal

BANGALORE/NEW DELHI

Researchers at the Indian Institute of Science (IISc), Bangalore, are mapping India's solar hot spots—where round-the-year sunlight makes it viable for companies to set up solar power plants.

The study can play a crucial role in enhancing India's energy supply.

Under the Jawaharlal Nehru National Solar Mission, India aims to have 1,000 megawatts (MW) of solar power produced by 2013 and 20 gigawatts (GW) by the end of 2022.

One gigawatt is enough to power close to one million homes.

The country currently generates 18,155MW, or 10.9%, of its electricity from renewable resources. Of this, solar energy makes up just 18MW, or 0.01%.

In the first phase of the study, supported by the environment ministry and being conducted at IISc's Centre for Ecological Sciences (CES), researchers have mapped states and regions with an abundance of sunlight.

"We have mapped the states that will have sunlight throughout the year, which will guide a business firm to set up a plant," said T.V. Ramachandra, a faculty member at CES and the project's guide.

CES will carry out district-level mapping in the next phase.

Rajasthan, Gujarat and Karnataka have been identified as the states that receive enough sunlight throughout the year to merit large commercial solar plants.

"Coastal parts of Kerala, Jharkhand and Uttar Pradesh and Andhra Pradesh are ideal states to set up small plants for domestic use, like solar cooker and solar water heater," Ramachandra said.

Rishabh Jain, a member of the research group, said most other states and metro cities receive sunlight only during the summer.

"Hence, those places are not favourable. For instance, Delhi is the hottest in summer, but the winters do not receive (enough) sunlight," he said.

The researchers used radiation data from US-based National Aeronautics and Space Administration's records.

Surface meteorology and solar energy data sets provided monthly average radiation data for 22 years—July 1983 to June 2005.

Solar potential maps, depicting monthly variations over the topography of India, were obtained using the geographical information system for mapping.

"While solar technology is improving, it is imperative to estimate the solar energy available over the land surface. We have only 45 solar radiation stations spread across the vastness of the country to give authentic ground measurement of the radiation. This sparse network cannot provide the data for the whole country," Ramachandra said.

India's location in the global solar belt—which lies between the 40 degrees north and 40 degrees south latitudes—makes it ideal for harnessing solar energy, said Jain.

> Rajasthan, Gujarat and Karnataka receive enough sunlight to merit large plants, according to IISc

The country, he said, receives sunlight in abundance for more than 300 days of the year.

India potentially has a $1 billion (₹4,481 crore) solar energy market, according to an estimate by the United Nations Energy Programme in its report for 2010.

A report on solar photovoltaic cells by the India Semiconductor Association (ISA), also released in 2010, said India has a cumulative power generation capacity of 152GW and faces a deficit of 11% in overall demand and 12% when demand peaks.

"With an expanding economy, the demand for power is growing at around 6% every year, and the peak load is expected to reach 176GW by 2012 and cross 778GW by 2031-32," the report added.

Mapping solar hotspots will benefit companies that want to harness solar power commercially, said Rajiv Jain, associate director, government affairs, ISA.

"As solar power is presently quite expensive, every percentage increase in the solar power output matters, which leads to reduction in per unit cost of power. The studies being carried out to map the solar hotspots would help in identification of areas with larger amount of solar insolation and output," he said.

Lalit Jain, chief operating officer, **Moser Baer Clean Energy Ltd**, said that in the absence of reliable data, energy generation estimates cannot be provided to banks, making it difficult to launch solar power projects.

"It also increases risks for the investors, and high interest rates increase the cost of generation...This kind of mapping will help the industry," he said. "However, we require last 20 years' radiation data along with data for weather conditions, which is required to assess energy generation at various sites."

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MINT ND 03/01/2011 P5

Civic hackers seek to find their feet in India

By Priyanka Pulla
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BANGALORE

In 2006, when Sushant Sinha, who holds a doctorate in Internet security from the University of Michigan, tried to use the Indian government's judicial rulings website, Judis.nic.in, he found it difficult to get the data he was looking for.

"Judis.nic.in didn't have a good text search or ability to sort results by relevance," Sinha said. The lack of these two critical functions rendered the wealth of data on the site largely unusable.

Sinha, who currently works at **Yahoo India**, set about creating the legal search engine Indiankanoon.org, which now has a database of more than 1.4 million judgements.

It tries to overcome the deficiencies of the government's effort, indexing judgements by the Supreme Court, the high courts and various tribunals, and linking them to the underlying Acts. In November, the portal saw around one million unique visits.

Sinha is a "civic hacker", a programmer driven by the urge to create applications that will allow fellow citizens to help themselves and further the democratic process by using information, often from freely available government databases. (A "cracker", on the other hand, uses similar tools to break into secure systems with malicious intent.)

Nishant Shah, director, research, at the Centre for Internet and Society (CIS), Bangalore, offers a wider definition for civic hackers.

"In a Web 2.0 world, you needn't have programming skills to be a civic hacker. When people have access to digital technologies, they are potentially civic hackers, because they have learned how to negotiate with oppression and injustice. In the West, the ubiquitousness of digital technologies has enabled a lot of people to engage with civic hacking—from subversive documentaries by the Yes Men group to parodic YouTube videos that critique state-market policies—all these qualify as civic hacking."

WikiLeaks, said Shah, is the biggest example of such a civic hacker in recent times.

"Civic hackers are always in grey territory," he said. "Their legality is always being questioned, depending on how far they go. Remember, WikiLeaks was around for five years before they began talking about banning it."

Much of the online Indian information in the open domain, from the government or autonomous bodies such as the Election Commission (EC), isn't always served up such that it can be sliced and diced in ways that citizens can digest, making the civic hacker a critical part of the democratic process in the digital age.

A larger presence in the West, they are thin on the ground in the country.

"Civic hackers, while present (in India), are not numerous, and it's unclear to what extent they are conscious of the work that others are doing, although this could be easily remedied through networking efforts both online and offline," according to a report by CIS.

One of the reasons for their sparse numbers CIS suggests is that the Indian government doesn't engage yet with the hacking community, unlike countries such as the US, New York, Washington DC and San Francisco, for instance, have portals that share data with the intention of encouraging application development.

The NYC BigApps competition has a cash prize of $20,000 (nearly ₹9 lakh) for the best application using the City of New York's NYC.gov data mine. Around 350 data sets including public safety data, buildings complaints, and real-time traffic numbers are thrown open to participants. In 2009, an application to let New Yorkers find mass transit routes, public school information, etc., based on their location won the prize.

Despite the lack of incentives, some hackers are still mushrooming in the Indian space.

Anirudha Chowdhury/Mint

Building a database: *Sushant Sinha is the founder of Indiankanoon.org, a website that indexes judgements by the Supreme Court, the high courts and various tribunals, and links them to the underlying Acts.*

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In 2009, just ahead of the April-May general election, 25-year-old Akshay Surve, the founder of a think tank for social change called SocialSync.org Labs, was building a Web application to profile members of Parliament.

The application was aimed at generating a snapshot of each legislator based on the debates they participated in, the number of Parliament sessions attended, and other such information that could help voters make an informed choice.

The websites of the EC and the Lok Sabha had much of this data in Excel and Adobe PDF documents, but that didn't necessarily make it usable. The formats changed every year, and some files didn't allow text and numbers to be extracted. To build the mashup—an application that throws together data from more than one source, mashing everything up to create a new service—Surve had to parse and standardize the data.

Realizing that the problem he faced was not an isolated one, Surve and his friend, Pavan Mishra, launched OpenCivic.in this year, a set of standards and APIs (application programming interface) that sift data from government websites and make them available in a machine-readable, remixable format.

Surve's API is the primary engine for Askneta.com and GovCheck.net, which track the performance of elected representatives and use OpenCivic's feed. He plans to keep the API free for non-commercial use. Now his team is at work to develop a mobile version of the API.

Another example is RTINation.com, built in August 2009 by a group of graduates from the Kanpur and Delhi Indian Institutes of Technology.

RTINation.com enables the online filing of Right to Information (RTI) applications. A 2009 PricewaterhouseCoopers report estimated that more than a quarter of those who file RTI applications have to visit a government office over three times to do so. RTINation.com generates its revenue by charging each user ₹125 for an application. It is now building a backoffice to handle marketing and promotion. "Since we launched, we have seen 200,000 unique visitors," said Rahul Gupta, a cofounder of RTINation.com.

Most civic hackers in India entered the field through work related to various e-governance initiatives and the RTI Act, which has put more government data in the public domain than ever before. This data, though, is dumped in a format that makes it difficult for citizens to use or understand.

"Few of the publicly accessible databases are open in terms of data reusability (in terms of machine-readability and openness of formats), data reusability (legally), easily accessible (via search engines, for persons with disabilities, etc.), understandable (marked up with annotations and metadata)," according to CIS. Here is where civic hackers such as Sinha and Surve come in.

CIS suggests that networking across civic hacking teams could strengthen this effort.

OpenCivic.in has been proactive in its tie-ups. In February, it joined hands with Yes To Politics, a civic participation endeavour by Texas-based software engineer Murali M.

Launched in 2009, Yes To Politics offers tools to help communities work on causes. Among these are analytics of previous elections and a tracker of ongoing campaigns. During its peak usage in the four weeks leading up to the 2009 assembly elections in Andhra Pradesh, the website had on an average 43,000 visitors a day, with a one-day surge of 97,457 visitors on 9 April that year. Yes To Politics, inactive since last year's polls, is going to launch a new version in January. "Once we do that, we contribute our own data feeds to OpenCivic," said Murali.

Talking about the challenges, Murali said, "The data sets from the Election Commission's site were raw and not directly presentable to users. So we had to iteratively transform it and correct (it) on the way and make meaningful sets. It took me almost three-and-a-half weeks to get it ready. And when the EC releases any new data, they always release in PDF files that are hard to retrieve and mashup. So I wrote special apps (applications) to scan files, transform data, and automatically correct spelling mistakes in names."

The 36-year-old software engineer works full-time for **Alcatel-Lucent** and develops the applications when he's free.

Yes To Politics has been steadily adding bells and whistles to its portal. Recently, it integrated Google Maps into an application called Vote2009, layering it with information such as when a constituency is scheduled to have elections.

"Another example is, due to delimitation, about 77 assembly and eight parliamentary constituencies in AP (Andhra Pradesh) have been reorganized. We set up a section where users can look at what has changed and find their constituency based on *mandal* and district information," Murali said.

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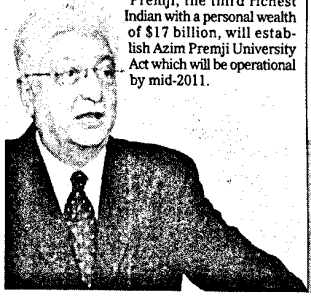
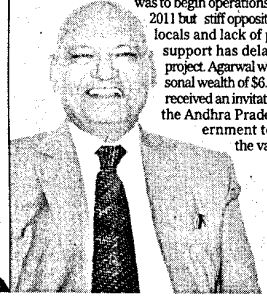
The edupreneurs...

AZIM PREMJI
Dubbed India's Bill Gates, Azim Premji, Chairman, Azim Premji Foundation and Wipro limited, transferred 213 million equity shares worth ₹8846 crores of Wipro Ltd to a trust. This trust will utilize the endowment to fund, social, educational and other not-for-profit initiatives.

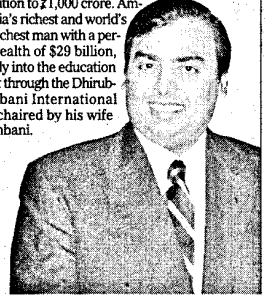


Premji, the third richest Indian with a personal wealth of $17 billion, will establish Azim Premji University Act which will be operational by mid-2011.

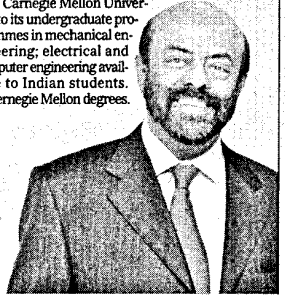
ANIL AGARWAL
Founder and Executive Chairman of the UK-listed Vedanta Resources Corporation, Agarwal announced plans of setting up the Vedanta University endowed with $1 billion from his personal funds in 2006. The over 6,000 acres university with an investment of ₹15,000 crore is modelled on Stanford University. It was to begin operations by mid-2011 but stiff opposition from locals and lack of political support has delayed the project. Agarwal with a personal wealth of $6.4 billion, received an invitation from the Andhra Pradesh government to set up the varsity.



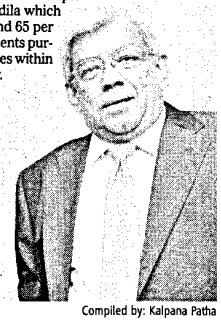
MUKESH AMBANI
Mukesh Ambani, chairman and managing director of Reliance Industries will set up a world class university modelled on the lines of American universities. Reliance Foundation, the philanthropic initiative of the Reliance Group, will invest ₹500 crore in the foundation with plans to scale up its contribution to ₹1,000 crore. Ambani, Asia's richest and world's fourth richest man with a personal wealth of $29 billion, is already into the education segment through the Dhirubhai Ambani International school chaired by his wife Nita Ambani.



SHIV NADAR
Shiv Nadar, the chairman and chief strategy officer of HCL Technologies is setting up the Shiv Nadar University located in a 286 acre campus at Dadri, Noida. Nadar, whose personal wealth is $4.2 billion, has been running the SSN Institutions in Tamil Nadu. In 2010, the Foundation joined hands with Carnegie Mellon University to its undergraduate programmes in mechanical engineering; electrical and computer engineering available to Indian students. ceivernegie Mellon degrees.



DEEPAK PAREKH
After setting up lending unit called Credila Financial Services. HDFC will look at small towns to either set up schools or take over defunct boarding schools. The entry into education will be made through a separate subsidiary. HDFC holds 51 per cent in Credila which lends around 65 per cent to students pursuing courses within the country.



Compiled by: Kalpana Patha

MINT ND
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MCI to hold common entrance exam

Chennai: Ignoring protests by political parties in Tamil Nadu, the Medical Council of India (MCI) has decided to conduct a nationwide common entrance examination for admissions to medical colleges in the country.

Announcing the decision, MCI additional secretary P. Prasannraj, in a notification published in the central gazette, said a national eligibility-cum-entrance test for admission to MBBS (Bachelor of Medicine and Bachelor of Surgery) courses will be held every academic year and a student should get 50% marks in each of the papers of the test.

"All admissions to MBBS course within the respective categories should be based solely on marks obtained in the national eligibility-cum-entrance test," the notification said. PTI

Hindustan Times ND 03/01/2011 p-13

hardat work

No chief of UGC just yet?

Aspirants who are queueing up for the post of chairman, University Grants Commission, may have to wait a while. The human resource development ministry is yet to appoint any search cum selection committee to pick a new chairman for the UGC, after incumbent Sukhdeo Thorat completes his term on February 3. The government, to defer the appointment of a full-fledged chairman, may appoint vice-chairman Ved Prakash as acting chairman after Thorat. The reason: the future of the UGC itself is in doubt, with the proposed National Commission for Higher Education and Research set to replace multiple regulators.

Term extension in lieu of JNU loss?

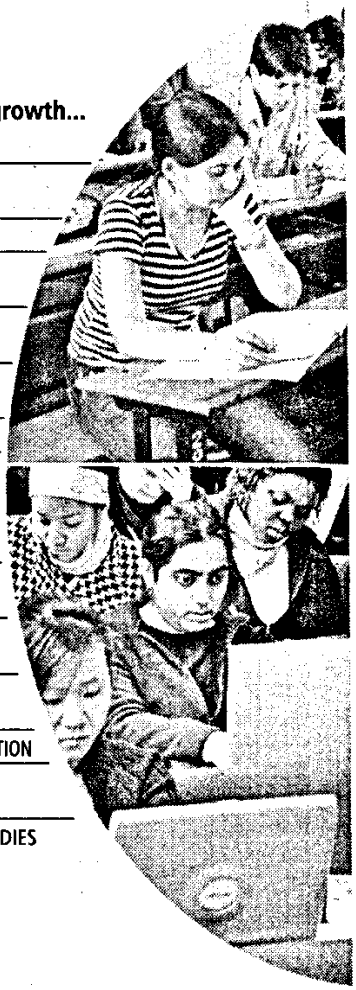
Hyderabad University vice-chancellor Syed Hasnain has received a three-month extension after his term ended last week, despite facing allegations of irregularities in the transfer of varsity land. The extension is being viewed in academic and power circles as an immediate compensation from human resource development minister Kapil Sibal, after Hasnain lost out in the race to become VC of Jawaharlal Nehru University.
Hasnain was deemed the favourite for the JNU top job before the selection process began. Eventually, he was not even shortlisted. Over the next three months, Hasnain may also receive a more long-term post from the government. The wait is on.

■ HRD minister Kapil Sibal.
HT FILE PHOTO

Business Standard ND 03/01/2011 P-15

Turning a new leaf

India has the largest target population for higher education in the world. Currently, Indians enrolling into higher education courses are more than that of Europe, the US and Australia combined



Taking stock of a decade's growth...

NO. OF UNIVERSITIES	
2000	266
2010	504
NO. OF COLLEGES	
2000	11,146
2010	25,951
NO. OF STUDENTS IN HIGHER EDUCATION	
2000	8.4 mn
2010	13.6 mn
GROSS ENROLLMENT RATIO (%)	
2000	7
2010	12
COST OF MANAGEMENT EDUCATION (RS/LAKH)	
2000	1.5
2010	13.7
COST OF ENGINEERING EDUCATION (RS/LAKH)	
2000	1
2010	2
RURAL ENROLMENT IN HIGHER EDUCATION	
2000	3.1 mn
2010	6.09 mn
STUDENTS GOING ABROAD FOR STUDIES	
2000	66,475
2010	0.2 mn

- Indian School of Business brought the concept of one-year management education to India
- ISB is also the first management institute to be ranked by Financial Times
- ISB rejects 17 per cent of applications it receives
- IIMs accept only 1 per cent of applications they receive
- A third of total GMAT takes in the world are from Asia
- Total GMAT test-takers in Asia are from India, at 39 per cent, against 30 per cent in China

Source: Ernst&Young and GMAC

Kalpana Pathak