THE BYTE

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From

Dept. Of Computer Science and Engineering

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THE BYTE TEAM


ARTICLES

California Startup Unveils Gun Technology for Cops

BY : Abhay kumar , 2CS 3rd yr

A Silicon Valley startup has developed technology to let dispatchers know when a police officer's weapon has been fired. The latest product by Yardarm Technologies would notify dispatchers in real time when an officer's gun is taken out of its holster and when it's fired. It can also track where the gun is located and in what direction it was fired.

Santa Cruz County Sheriff Phil Wowak, whose agency is among two testing the technology, said it will allow the sheriff's office to see whether deputies are in trouble and unable to ask for assistance.
"That's the worst nightmare for any police officer in the field," he said.

The system will not include a remote disabling mechanism. Yardarm was pursuing that technology and demonstrated it at a conference in Las Vegas last year, but it has since abandoned that effort, according to the Capitola, California,-based company's marketing vice president, Jim Schaff.

Yardarm's system would have triggered an alarm on an owner's cellphone if a gun had been moved, and the owner would then have been able to hit a button to activate the safety and disable the weapon.
Schaff would not say exactly why the company gave up on remotely disabling guns. Gun rights advocates have raised serious concerns that so-called smart gun technology could be used to limit their access to weapons.

The developers insist their latest technology is not creating a smart gun, but rather is "police gunfire tracking technology."

Sam Paredes, executive director of Gun Owners of California, said his organization isn't opposed to the particular technology Yardarm is developing and other smart-gun technology.
"
What we do oppose are government mandates requiring all gun owners to adopt the technology," Paredes said. "If law enforcement wants to adopt this technology, that's great. Just don't make every gun owner adopt the technology."

Smart gun technology has been around for decades, but technological advances and recent large shootings have prompted more than a dozen smart gun companies to begin developing weapons. Some began selling in gun shops this year, but analysts say controversy surrounding the technology could limit sales.

The technology that tracks an officer's gun relies on the Internet and requires a small device that can fit in the handle of most police handguns. It connects to the officer's smart phone using Bluetooth.
"The officer simply inserts it into the back of the firearm, and now it's installed. They don't even know it's there anymore," Schaff said during a recent demonstration.
Yardarm is paying for the test in the hopes they can develop the technology nationwide and charge departments for it next year.

Schaff said the company has not yet determined a price.

DOCKER

By: Ms. Ann Mary
Assistant Professor
Dept. of CSE

Introduction:

Docker is an open source linux only virtual environment tool. It does not create or work on a Virtual machine concept (VM abstracts the whole system, while docker abstracts just the kernel) instead it builds on linux contianers (Lxc) and uses linux control groups to isolate the various virtual environments on a single host. This, in turn, means that one thing hypervisors can do that containers can't is to use different operating systems or kernels. So, for example, you can use Microsoft Hyper-V to run both instances of Windows Server 2012 and SUSE Linux Enterprise Server, at the same time. With Docker, all containers must use the same operating system and kernel.Virtual environments reside on top of an existing OS and create containers to run applications. The main advantage over existing LXc is that, docker made those containers portable. In a nutshell, here's what Docker can do for you: It can get more applications running on the same hardware than other technologies; it makes it easy for developers to quickly create, ready-to-run containered applications; and it makes managing and deploying applications much easier.

Use cases:

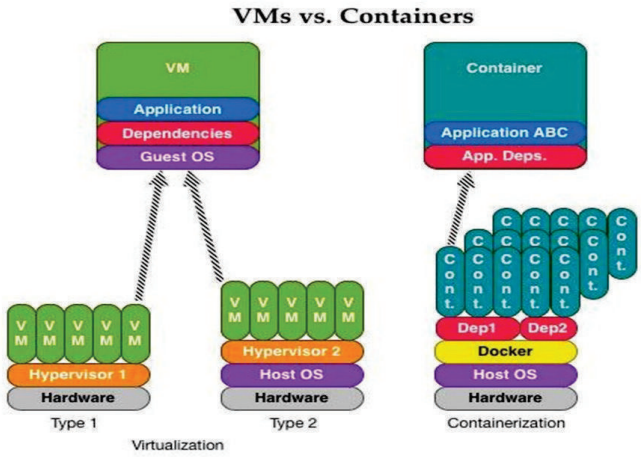
1. Applications can be deployed easily on server with good build pipeline.
2. Can be used in production environments with Mesos or Kunbernetes for application HA and better resource utilization.
3. Deploying applications on AWS beanstalk and Google app engine.
4. You can clone the production environment in developer's workstation.
5. To perform load/scale testing by launching various containers and thus reducing the VM footprint.
6. Can be used in multi-tenant environments.

How it works:

Docker uses docker file to automate the container builds. Docker file contains scripts to build the base image and command to install and configure applications on a container. Docker pulls the base image mentioned in the dockerfile from docker public registry.Container creates a snaphot for each and every changes made to it. So if something goes wrong , the container can be rolled back to the previous state.

Example workflow with vagrant, Docker and chef:

1. Vagrant is used for developing and testing docker container application.
2. Git repository to version the docker files.
3. Docker file holds instructions to build an image.
4. Chef is used orchestrate docker installation, image pulls and container network configurations, monitoring and container management.



Supported platforms:

Mac OS , Debian , RHEL , SUSE , Windows Gentoo , Amazon EC2 , Google Cloud Platfrom Arch ,Linux , Rackspace , IBM softlayer.

Installation platform : AWS EC2(Ubuntu 14.04)

Launch an instance

Update the server

Docker installation files are available in linux repositories. There are no prerequisites for docker. It can be installed directly from the repository.

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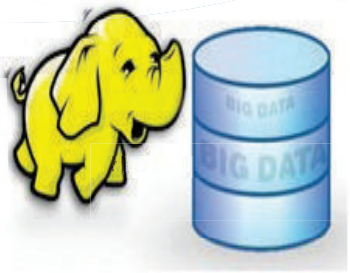
BIG DATA

By: Ms. Arti Patle
Assistant Proff.
Dept. Of CSE



"Big Data' is similar to 'small data', but bigger. With an aim to solve new problems or old problems in a better

Big data is a popular term used to describe the exponential growth and availability of data, both structured and unstructured. And big data may be as important to business – and society – as the Internet has become. Big data usually includes data sets with sizes beyond the ability of commonly used software tools to capture, curate, manage, and process data within a tolerable elapsed time. Big data "size" is a constantly moving target, as of 2012 ranging from a few dozen terabytes to many petabytes of data.

Application Domain of BIG DATA

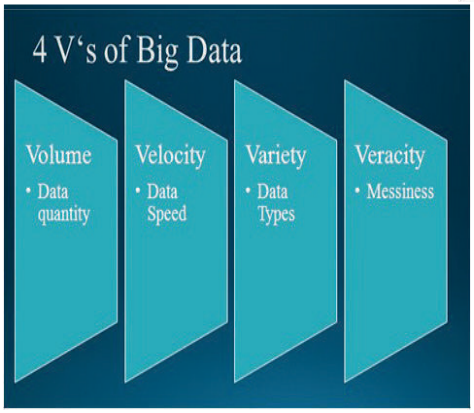
Science and research
Government
Private sector
International development

Sources of Big Data

- Structured data (research databases and 3rd party market databases)
- Unstructured human generated data (customer feedback, social media, photos, video and audio)

Machine generated unstructured data, which is the fastest growing data source (weblogs, transactional information, call records, wifi and geolocation).

It is now possible to manage the volume, velocity and variety of Big Data using software, so the focus



Hadoop is an open-source software framework for storing and processing big data in a distributed fashion on large clusters of commodity hardware. Essentially, it accomplishes two tasks: massive data storage and faster processing. It is designed to scale up from a single server to thousands of machines, with a very high degree of fault tolerance.

An overview of the key trends in Big Data

An overview of the key trends in Big Data

1. **Availability of increasingly sophisticated data aggregation software**: It is now possible to mine structured data sources alongside unstructured data sources to merge data sets that were previously incompatible.
2. **The importance of 'filtering' and 'tagging':** with the amount of data generated, companies need to filter which sources to be stored and tag in real time the ones that should be analyzed.
3. **Monetization of Big Data sources**: Monetization takes two main forms: selling the data collected in the market or analyzing data to improve business performance.
4. **An increasing focus of analytics to extract value**

Why Hadoop important?

Since its inception, Hadoop has become one of the most talked about technologies. Why? One of the top reasons (and why it was invented) is its ability to handle huge amounts of data – any kind of data – quickly. With volumes and varieties of data growing each day, especially from social media and automated sensors, that's a key consideration for most organizations. Other reasons include:

- **Low cost.**
- **Computing power.**
- **Scalability.**
- **Storage flexibility.**


LATEST
TECHNOLOGIES

FUTURE HUMAN EVOLUTION

By : Shubham Sinha , B.Tech ,CS2 3rd yr

But where is evolution taking us? Will our descendants hurtle through space as relatively unchanged as the humans on the starship*Enterprise?* Will they be muscle-bound cyborgs? Or will they chose to digitize their consciousnesses—becoming electronic immortals?

And as odd as the possibilities may seem, it's worth remembering that, 150 years ago, the ape-to-human scenario in *On the Origin of Species* struck many as nothing so much as monkey business.

PREDICTION ONE

Human Evolution Is Dead

"Because we *have* evolved, it's natural to imagine we will continue to do so, but I think that's wrong," anthropologist Ian Tattersall of New York's American Museum of Natural History said in an email.

"Everything we know about evolutionary change suggests that genetic innovations are only likely to become fixed in small, isolated populations," he said.

For example, Darwin's famous Galápagos finches each evolved from their mainland ancestor to fit a unique habitat on the isolated islands in the Pacific.

Natural selection, as outlined in *On the Origin of Species,* occurs when a genetic mutation—say, resulting in a spine suited to upright walking—is passed down through generations, because it affords some benefit. Eventually the mutation becomes the norm.

But if populations aren't isolated, crossbreeding makes it much less likely for potentially significant mutations to become established in the gene pool—and that's exactly where we are now, Tattersall said.

"Since the advent of settled life, human populations have expanded enormously.*Homo sapiens* is densely packed across the Earth, and individuals are unprecedentedly mobile".

"In this situation, the fixation of any meaningful evolutionary novelties in the human population is highly improbable." Tattersall said. "Human beings are just going to have to learn to live with themselves as they are."

Steve Jones, a genetics professor at University College London, put forward a similar scenario during a recent lecture series marking the bicentenary of Darwin's birth and the 150th anniversary of *On the Origin of Species* at the University of Cambridge.

The human population will become more alike as races merge, he said, but "Darwin's machine has lost its power."

That's because natural selection—Darwin's "survival of the fittest" concept—is being sidelined in humans, according to Jones.

The fittest will no longer spearhead evolutionary change, because, thanks to medical advances, the weakest also live on and pass down their genes.

When *On the Origin of Species* was published in 1859, only about half of British children survived to 21. Today that number has swelled to 99 percent. In developed countries, "the fact that everybody stays alive, at least until they're sexually mature, means ['survival of the fittest' has] got nothing to work with," Jones said. "That part of the Darwinian fuel has gone."

PREDICTION TWO

"Humans Will Continue to Evolve"

Other scientists see plenty of evidence that human evolution is far from over.

For instance, a study published last month in the journal *Proceedings of the National Academy of Sciences* suggested that women of the future could become shorter and stouter.

A team led by Yale University evolutionary biologist Stephen Stearns found that, due to ovulatory characteristics, shorter, slightly plumper women tend to have more children than their peers. These physical traits are passed on to their offspring, suggesting natural selection in humans is alive and well.

Geoffrey Miller, an evolutionary psychologist at the University of New Mexico, believes Darwinian evolution in humans is actually speeding up. He highlighted sexual selection through mate choice as one key driver. "You still have powerful mate choice shaping mental traits particularly ... traits that are needed to succeed economically and in raising kids," Miller said. "We're also going to get stronger sexual selection, because the more advanced the technology gets, the greater an effect general intelligence will have on each individual's economic and social success, because as technology gets more complex, you need more intelligence to master it," he said.

"That intelligence results in higher earnings, social status, and sexual attractiveness."

Miller added that artificial selection using genetic technologies will likely accentuate these changes in the future.

"Parents could basically choose which sperm and egg get to meet up to produce a baby based on genetic information about which genes contribute to which physical and mental traits," he said. "If the rich and powerful keep the artificial-selection technology to themselves, then you could get that kind of split between a kind of upper-class, dominant population and a lower-class, genetically oppressed population," he added. "But I think it's very likely the new genetic technologies will be widespread in their use, simply because that's more profitable. So I think there will actually be a leveling effect, where both the poor and the rich are going to be able to have the best kids they can genetically.

"You will probably see a rise in average physical attractiveness and health," he added. "You will probably get selection for physical traits that tend to be attractive in both males and females—things like height, muscularity, energy levels." But "regular" natural selection will also continue to play a major role, Miller believes.

"What you're facing now is a global pathogen pool of viruses and bacteria that get spread around by air travel to every corner of the Earth, and that's going to increase," he said. "We're going to get a lot more epidemics," Miller added. "That will increase the importance of the genetic immune system in human survival"—and result in a human species with stronger immune systems, he speculated.

PREDICTION THREE

"Humans to Achieve Electronic Immortality"

A philosophy known as transhumanism sees humans taking charge of their evolution and transcending their biological limitations via technology.

In essence, the old-fashioned evolution of *On the Origin of Species* may be beside the point: The future may belong to *unnatural* selection.

Nick Bostrom, director of the Future of Humanity Institute at the University of Oxford, said Darwinian evolution "is happening on a very slow time scale now relative to other things that are leading to changes in the human condition"—cloning, genetic enhancement, robotics, artificial intelligence, and nanotechnology, for starters.

Transhumanism raises a spectacular array of possibilities, from supersoldiers and new breeds of athletes to immortal beings who, having had their brains scanned atom by atom, transfer their minds to computers.

GOOGLE DRIVERLESS CAR

By : Vishal Upadhyaya , EN 3rd yr

The U.S. state of Nevada passed a law on June 29, 2011, permitting the operation of autonomous cars in Nevada. On May 28, 2014, Google presented a new prototype of their driverless car that had neither a steering wheel nor pedals.

The **Google Self-Driving Car** is a project by Google that involves developing technology for autonomous cars. The software powering Google's cars is called Google Chauffeur. Lettering on the side of each car identifies it as a "self-driving car". The project is currently being led by Google engineer Sebastian Thrun, former director of the Stanford Artificial Intelligence Laboratory and co-inventor of Google Street View. Thrun's team at Stanford created the robotic vehicle Stanley which won the 2005 DARPA Grand Challenge and its US$2 million prize from the United States Department of Defense. The team developing the system consisted of 15 engineers working for Google, including Chris Urmson, Mike Montemerlo, and Anthony Levandowski who had worked on the DARPA Grand and Urban Challenges.

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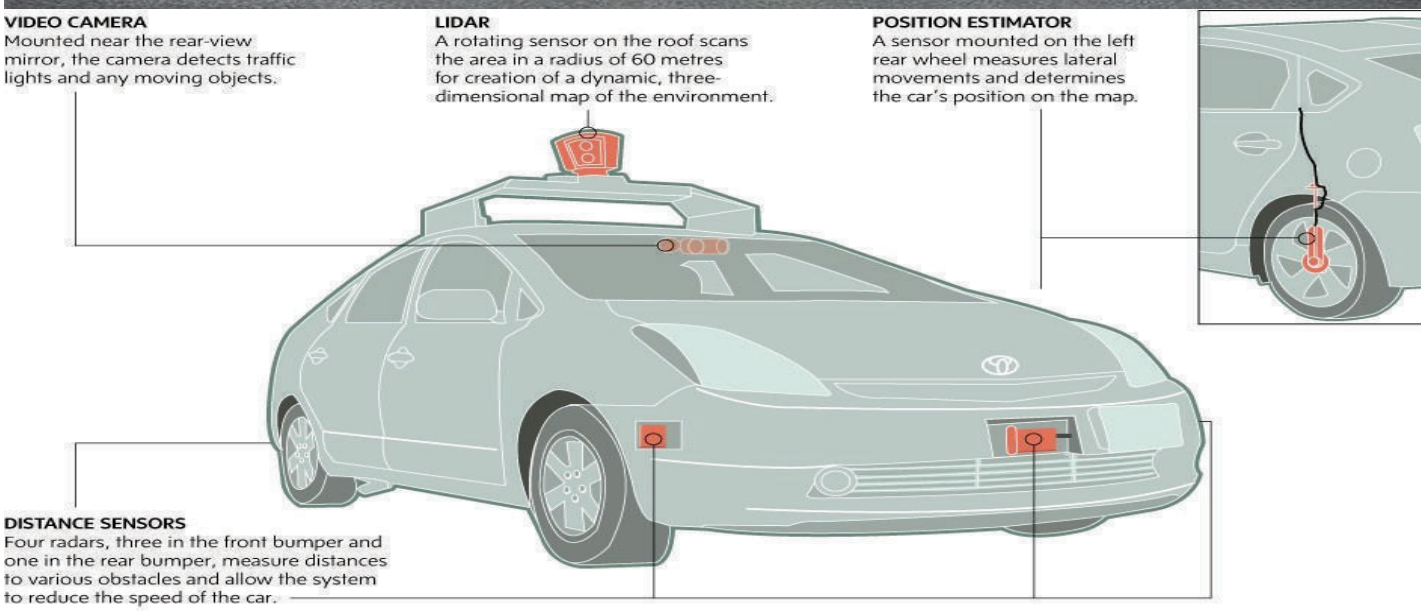


CARRIE COCKBURN/THE GLOBE AND MAIL » SOURCES: GOOGLE; ARTICLESBASE.COM; WHEELS.CA

WiMAX

Vishan Kumar Gupta
Assistant Professor
CSE Department

WiMAX (Worldwide Interoperability for Microwave Access) is a telecommunications protocol that provides fixed and fully mobile internet access. The current WiMAX revision provides up to 40 Mbit/s with the IEEE 802.16m update expected offer up to 1 Gbit/s fixed speeds.

In practical terms, WiMAX would operate similar to WiFi but at higher speeds, over greater distances and for a greater number of users. WiMAX could potentially erase the suburban and rural blackout areas that currently have no broadband Internet access because phone and cable companies have not yet run the necessary wires to those remote locations.

A WiMAX system consists of two parts:-

A WiMAX tower, similar in concept to a cell-phone tower – A single WiMAX tower can provide coverage to a very large area — as big as 3,000 square miles (~8,000 square km).

A WiMAX receiver(CPE -Customer Premises Equipment) – The receiver and antenna could be a small box or PCMCIA card, or they could be built into a laptop the way WiFi access is today.

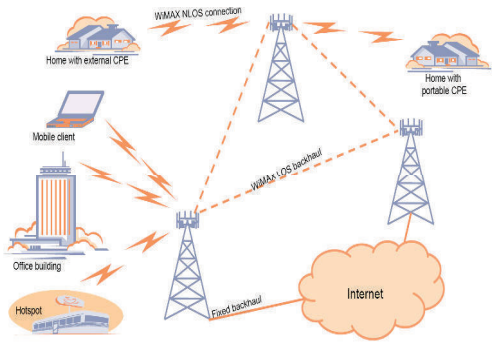
A WiMAX tower station can connect directly to the Internet using a high -bandwidth, wired connection (for example, a T3 line). It can also connect to another WiMAX tower using a line-of-sight, microwave link. This connection to a second tower (often referred to as a backhaul), along with the ability of a single tower to cover up to 3,000 square miles, is what allows WiMAX to provide coverage to remote rural areas.

What this points out is that WiMAX actually can provide two forms of wireless service:

There is the non-line-of-sight, WiFi sort of service, where a small antenna on your computer connects to the tower. In this mode, WiMAX uses a lower frequency range — 2 GHz to 11 GHz (similar to WiFi). Lower-wavelength transmissions are not as easily disrupted by physical obstructions — they are better able to diffract, or bend, around obstacles.

There is line-of-sight service, where a fixed dish antenna points straight

at the WiMAX tower from a rooftop or pole. The line-of-sight connection is stronger and more stable, so it's able to send a lot of data with fewer errors. Line-of-sight transmissions use higher frequencies, with ranges reaching a possible 66 GHz. At higher frequencies, there is less interference and lots more bandwidth.



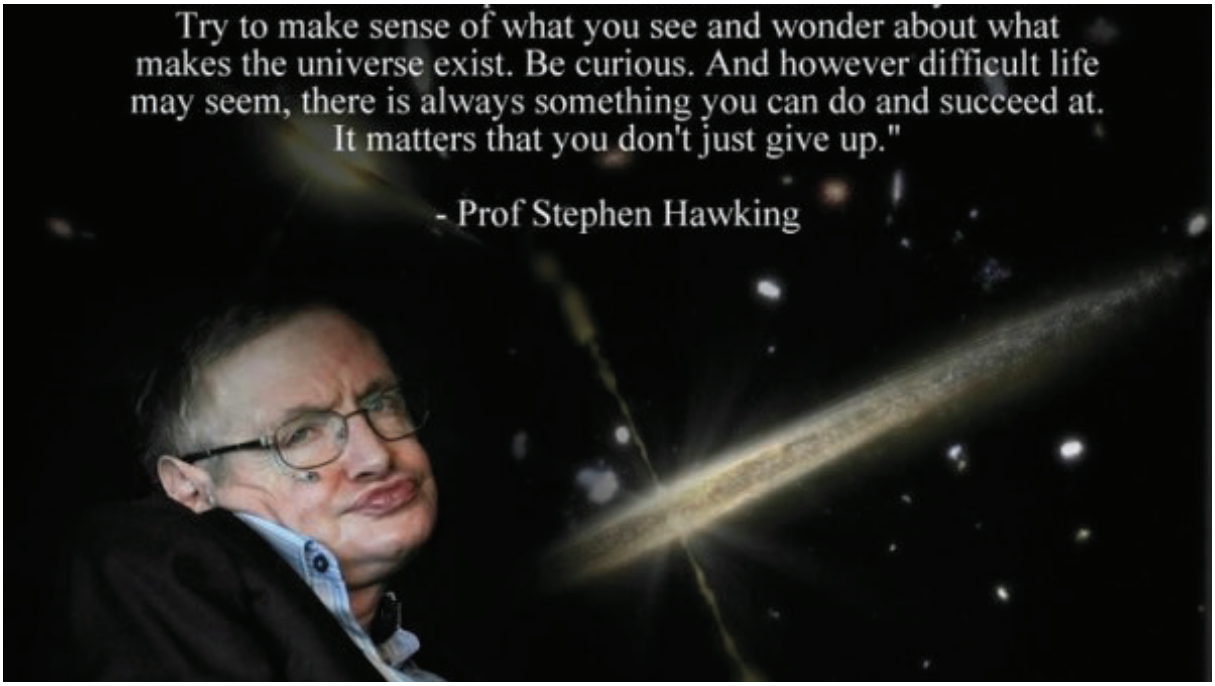
WiMAX Technology at Home :

Here's what would happen if you got WiMAX. An Internet service provider sets up a WiMAX base station 10 miles from your home. You would buy a WiMAX-enabled computer or upgrade your old computer to add WiMAX capability. You would receive a special encryption code that would give you access to the base station. The base station would beam data from the Internet to your computer (at speeds potentially higher than today's cable modems), for which you would pay the provider a monthly fee. The cost for this service could be much lower than current high-speed Internet-subscription fees because the provider never had to run cables.

If you have a home network, things wouldn't change much. The WiMAX base station would send data to a WiMAX-enabled router, which would then send the data to the different computers on your network. You could even combine WiFi with WiMAX by having the router send the data to the computers via WiFi.

WiMAX doesn't just pose a threat to providers of DSL and cable-modem service. The WiMAX protocol is designed to accommodate several different methods of data transmission, one of which is Voice Over Internet Protocol (VoIP). VoIP allows people to make local, long-distance and even international calls through a broadband Internet connection, bypassing phone companies entirely. If WiMAX-compatible computers become very common, the use of VoIP could increase dramatically. Almost anyone with a laptop could make VoIP calls.


LITERARY



STEPHEN HAWKINGS....

"THE MAN TO BE REMEMBERED"

By : Rohit Kumar Singh , B.Tech CS2 , 2nd yr

British cosmologist Stephen William Hawking was born in England on Jan. 8, 1942, 300 years to the day after the death of the astronomer Galileo Galilei. He attended University College, Oxford, where he studied physics, despite his father's urging to focus on medicine. Hawking went on to Cambridge to research cosmology, the study of the universe as a whole. In early 1963, just shy of 21, Hawking was diagnosed with motor neurone disease, more commonly known as Lou Gehrig's disease. He was not expected to live more than two years. Completing his doctorate did not appear likely. Yet Hawking defied the odds, not only attaining his Ph.D. but forging new roads into the understanding of the universe in the decades since. As the disease spread, Hawking became less mobile, and was confined to a wheelchair. Talking grew more challenging and, in 1985, an emergency tracheotomy caused his total loss of speech. A speech generating device constructed at Cambridge, combined with a software program, serves as his electronic voice today, allowing Hawking to select his words by moving the muscles in his cheek. Just before his diagnosis, Hawking met Jane Wilde, and the two were married in 1965. The couple had three children before separating. Hawking remarried in 1995 but divorced in 2006. "

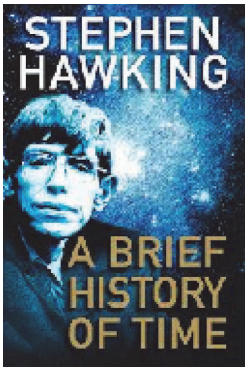
A brilliant mind

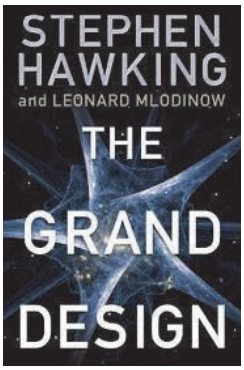
Hawking continued at Cambridge after his graduation, serving as a research fellow, and later as a professional fellow. In 1974, he was inducted into the Royal Society, a worldwide fellowship of scientists. In 1979, he was appointed Lucasian Professor of Mathematics at Cambridge, the most famous academic chair in the world (the second holder was Sir Isaac Newton, also a member of the Royal Society. Over the course of his career, Hawking studied the basic laws governing the universe. He proposed that, since the universe boasts a beginning – the Big Bang – it will likely have an ending. Working with fellow cosmologist Roger Penrose, he demonstrated that Einstein's General Theory of Relativity suggested that space and time began at the birth of the universe, and ends within black holes, a result that implied that Einstein's theory of General Relativity and quantum theory must be united.

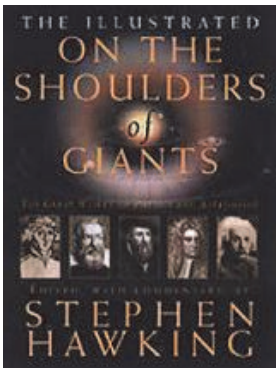
Using the two theories together, Hawking also determined that black holesare not totally silent but instead emit radiation. He predicted that, following the Big Bang, black holes the size of protons were created, governed by both general relativity and quantum mechanics. [PHOTOS: Black Holes of the Universe] Hawking proposed that the universe itself has no boundary, much like the Earth. Although it is finite, one can travel around the planet (and through the universe) infinitely, never encountering a wall that would be described as the "end."

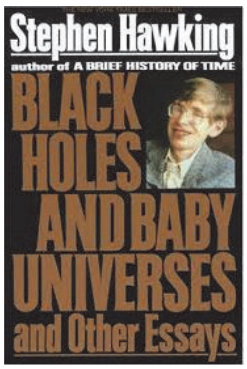
Hawking's books

Hawking is a popular writer. His first book,"A Brief History of Time," was published in 1988 and became an international best seller. In it, Hawking aimed to communicate questions about the birth and death of the universe to the lay person. Since then, Hawking has gone on to write other nonfiction books aimed at nonscientists. These include "A Briefer History of Time," "The Universe in a Nutshell," "The Grand Design," and "On the Shoulders of Giants." He has also created a fictional series of books for middle school children on the creation of the universe, beginning with "George and the Big Bang." Hawking has made several television appearances, including a playing hologram of himself on 'Star Trek: The Next Generation' and a cameo on the television show 'Big Bang Theory'. PBS presented an educational miniseries titled "Stephen Hawking's Universe," which probes the theories of the cosmologist.









Stephen Hawking quotes

Hawking's quotes range from notable to poetic to controversial.

Among them: "Even if there is only one possible unified theory, it is just a set of rules and equations. What is it that breathes fire into the equations and makes a universe for them to describe? The usual approach of science of constructing a mathematical model cannot answer the questions of why there should be a universe for the model to describe. Why does the universe go to all the bother of existing? "

"All of my life, I have been fascinated by the big questions that face us, and have tried to find scientific answers to them. If, like me, you have looked at the stars, and tried to make sense of what you see, you too have started to wonder what makes the universe exist."

"Science predicts that many different kinds of universe will be spontaneously created out of nothing. It is a matter of chance which we are in."

"The whole history of science has been the gradual realization that events do not happen in an arbitrary manner, but that they reflect a certain underlying order, which may or may not be divinely inspired. "

"We should seek the greatest value of our action."

"The greatest enemy of knowledge is not ignorance, it is the illusion of knowledge."

"Intelligence is the ability to adapt to change."

"It is not clear that intelligence has any long-term survival value. "

"One cannot really argue with a mathematical theorem. "

"It is a waste of time to be angry about my disability. One has to get on with life and I haven't done badly. People won't have time for you if you are always angry or complaining."

INDIVIDUALITY:Believe in yourself!

I've always wanted to be different. Like someone to which others can either look upto or talk about. And if not that then at least someone who gets noticed (in a good way). When I was a child I always tried to imitate those whom I found interesting or unique in their own way of living, dressing, talking or behaving. I thought imitating them would make me look smarter. But the results were always upsetting. And the inability to fathom the reasons behind my failure made me more upset. As I grew up and became more conscious of my looks I found everything wrong within myself and kept on experimenting with my looks which were always an inspiration from some external source (read films and magazines). This time though I was successful in garnering some appreciation, satisfaction was lacking.

Ultimately i gave up and left myself the way I was(and am). I started doing things that I enjoyed, started wearing clothes that i was comfortable in and wore my natural look. I was prepared for every criticism that came my way. This time not only was I satisfied and happy but I also felt confident about myself as I was REAL after a very long time. The reactions were not at all upsetting but actually motivating. For the first time I heard words like 'interesting' and 'cool' for me. My quest ended and I realized that to be unique you just have to be YOURSELF.

Whenever I look at successful personalities I find one thing common in everyone and that is their INDIVIDUALITY. I believe individuality is all about questioning, realizing and believing in yourself. Individuality is a recipe made out of your thoughts, beliefs and interests. And the secret ingredient is your faith over yourself. If we keep copying others in order to look attractive we'll always end up as boring and disinteresting people. To be noticed you have to be different. To be different you have to be unique. And to be unique you have to be REAL. Reality appeals a lot more than fakeness. Once you are real, you will always be satisfied with yourself and exuberate a lot of confidence. People will surely look upto you. The best part is you will be often criticized but it won't bother you as you are well aware that being noticed isn't that easy and you have managed it quite beautifully.

There is a lot of fakeness in the world which is simply boring or rather pathetically boring. Lets counter it by being real and spreading some "uniqueness"

To have an Opinion : Its Important to Speak

There are 3 kinds of people in this world- one, who have opinion on everything; second, who don't have any opinion at all and third, who have the sensibility of having right opinions at right time and right place. Let me opine sequentially on each species.

The first category is popularly known as 'attention-seekers'. If you are hearing them, you HAVE to believe them. In their presence you feel ignored, disinterested and BORED. And these people don't even understand why. They usually blabber more and speak less. They possess an inflated self-esteem and self-worth which others don't understand why. At the end of the whole process of discussion (which is apparently one-sided), neither they gain anything nor the ones listening. The only aim of these guys is to get "noticed" in any way possible. They often succeed in their mission but not in an appreciable way. According to my own survey, such people are mostly unemployed, frustrated or both. Usually these guys get into trouble when they forget that discussing and interfering are two completely different things and should never be mixed with one another. Till the time you are being respectfully heard you can continue talking. But the moment someone gets offensive and starts taking things personally, its time for you to shut up. To sum up, I'll quote a line which I think can make things simpler for these guys and that's "generally speaking, you are not learning much when your lips are moving."

Second category constitutes "the well's frog". Ignorance is a bliss but too much ignorance is a menace. The brains of ignorant people are least used and well-preserved. These guys don't even try to realize their purpose of living and accept everything in their life the way it is happening. Things get even worse when they become rigid in accepting change. Observing, questioning and thinking are things completely alien to them. Something more dangerous than being completely ignorant is being half-ignorant which gives birth to prejudices. The only advantage is that they are extremely happy and satisfied with their life, no matter how hard it may look. They either feel arguing is a waste of time or something amusing. Their minds are highly impressionable and thus can be easily brainwashed. The sad part is its easy to cheat them and hurt them. All these things affect their progress and success in life. Its not that they cannot form opinions or are unable to express them but the problem is that they don't understand the importance of questioning. No wonder that even in 21st century, social evils and inequality still exists.

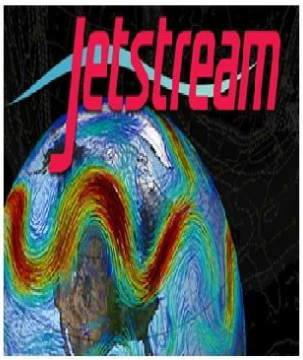
The third and final category are known by many names like "revolutionaries", "trend-setters", "path-breakers", etc. These people think, observe, analyze and then speak. They might not speak often but when they do its for the right reason, at the right time and the right place. Hearing them is a treat. You get to learn a 100 new things from them. The biggest changes in societies are a result of their thoughts. Their opinions always leave a impact on others. Courageous questions and deep answers are their identifications. The issue or cause of speaking might vary but their intention is same, i.e, to bring some CHANGE.


Q & A

Current News

Anuj Srivastava
3rd year , cs-1

THE WORLD



Innovative new supercomputers increase nation's computational capacity and capability

Tens of thousands of researchers nationwide currently harness the power of massive supercomputers to solve research problems that cannot be answered in the lab. However, studies show this represents only a fraction of the potential users of such resources.

Study supports free 'Super WiFi'

The need for the wireless transfer of data will increase significantly in the coming years. Scientists therefore propose to turn some of the TV frequencies that will become free into common property and to use it to extend existing wireless networks (WiFi) instead of using the frequencies for mobile communications. Their study recommends that the additional frequencies not be marketed but made available to the population and companies at no cost.

Professor proposes alternative to 'Turing Test'

(Phys.org) —A Georgia Tech professor is offering an alternative to the celebrated "Turing Test" to determine whether a machine or computer program exhibits human-level intelligence. The Turing Test - originally called the Imitation Game - was proposed by computing pioneer Alan Turing in 1950. In practice, some applications of the test require a machine to engage in dialogue and convince a human judge that it is an actual person.
(Phys.org) —A Georgia Tech professor is offering an alternative to the celebrated "Turing Test" to determine whether a machine or computer program exhibits human-level intelligence. The Turing Test - originally called the Imitation Game - was proposed by computing pioneer Alan Turing in 1950. In practice, some

Narendra Modi announces slew of initiatives for SAARC countries

Outlining India's initiatives in key sectors for South Asia, Prime Minister Narendra Modi on Wednesday made a series of announcements for SAARC countries – from granting business visa for 3-5 years to immediate medical visa – and assured all possible help to the grouping.

Magic tricks created using artificial intelligence for the first time

The researchers gave a computer program the outline of how a magic jigsaw puzzle and a mind reading card trick work, as well the results of experiments into how humans understand magic tricks, and the system created completely new variants on those tricks which can be delivered by a magician.

Big-data mining project gives birds-eye view of the G20

Dr Peta Mitchell is mapping the G20 Leaders' Summit as it plays out on Twitter and Instagram to find out how the event is affecting those inside the 'barricades'.

Gentleman's game not all that gentle: A peek into past injuries

In the infamous Bodyline Series in 1932-33, the Australian wicketkeeper Bert Oldfield had his skull fractured when he was hit by a ball from English fast bowler Harold Larwood

Pakistani writer Bilal Tanweer wins 2014 Shakti Bhatt First Book Prize

Pakistani writer, Bilal Tanweer has won the 2014 Shakti Bhatt First Book Prize for his novel "The Scatter Here Is Too Great". The award carries a cash component of Rs. 2 lakh.

Iran and six world powers extend deadline for nuclear talks

The deadline to reach a comprehensive agreement for a Iran's Nuclear Programme deal with six world powers i.e. P-6 or P-5 +1 countries has been extended to the end of June, 2015 after recent talks in Vienna, Austrian failed.

Facebook CEO Mark Zuckerberg meets Prime Minister Narendra Modi

On his maiden trip to India, Facebook co-founder and one of the world's youngest billionaires Mark Zuckerberg on Friday called on Prime Minister Narendra Modi to discuss digital expansion in the country.

Samsung retains top slot in Indian smartphone market: IDC

NEW DELHI: India continues to be the fastest growing smartphone market in the Asia Pacific region, with about 82% growth in the July-September quarter of 2014 over the same period last year, research firm IDC said today.

Bitcoin transactions not safe, warn scientists

LONDON: Bitcoin does not protect a user's IP address and the digital currency can be linked to the user's transactions in real-time by hackers, scientists have warned.


Placement
Updates

CAMPUS PLACEMENT FOR 2015 BATCH

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