



# All on genome identifies unknown human ancestor

By combining deep learning algorithms and statistical methods, investigators have identified, in the genome of Asian individuals, the footprint of a new hominid who cross bred with its ancestors tens of thousands of years ago.

Modern human DNA computational analysis suggests that the extinct species was a hybrid of Neanderthals and Denisovans and cross bred with Out of Africa modern humans in Asia. This finding would explain that the hybrid found this summer in the caves of Denisova -- the offspring of a Neanderthal mother and a Denisovan father -- was not an isolated case, but rather was part of a more general introgression process.

Humans had descendants with a species that is unknown to us

One of the ways of distinguishing between two species is that while both of them may cross breed, they do not generally produce fertile descendants. However, this concept is much more complex when extinct species are involved. In fact, the story told by current human DNA blurs the lines of these limits, preserving fragments of hominids from other species, such as the Neanderthals and the Denisovans, who coexisted with modern humans more than 40,000 years ago in Eurasia.

Now, investigators of the Institute of Evolutionary Biology (IBE), the Centro Nacional de Análisis Genómico (CNAG-CRG) of the Centre for Genomic Regulation (CRG), and the University of Tartu have

used deep learning algorithms to identify a new and hitherto-unknown ancestor of humans that would have interbred with modern humans tens of thousands of years ago. "About 80,000 years ago, the so-called Out of Africa occurred, when part of the human population, which already consisted of modern humans, abandoned the African continent and migrated to other continents, giving rise to all the current populations," explained Jaume Bertranpetit, principal investigator at the IBE and head of Department at the UPF. "We know that from that time onwards, modern humans cross bred with Neanderthals in all the continents, except Africa, and with the Denisovans in Oceania and probably in South-East Asia, although the evidence of cross-breeding with a third extinct species had not



been confirmed with any certainty."

Deep learning: deciphering the keys to human evolution in ancient DNA

Hitherto, the existence of the third ancestor was only a theory that would explain the origin of some fragments of the current human genome (part of the team involved in this study had already posed the existence of the extinct hominid in a previous study). However, deep learning has made it possible to make the transition from DNA to the demographics of ancestral populations. The problem the

investigators had to contend with is that the demographic models they have analysed are much more complex than anything else considered to date and there were no statistic tools available to analyse them. Deep

learning "is an algorithm that imitates the way in which the nervous system of mammals works, with different artificial neurons that specialise and learn to detect, in data, patterns that are important for performing a given task," stated Óscar Lao, principal investigator at the CNAG-CRG and an expert in this type of simulations. "We have used this property to get the algorithm to learn to predict human demographics using genomes obtained through hundreds of thousands of simulations. Whenever we run a simulation we are travelling along a possible path in the history of humankind. Of all simulations, deep learning allows us to observe what makes the ancestral puzzle fit together."

It is the first time that deep learning has been used successfully to explain human history, paving the way for this technology to be applied in other questions in biology, genomics and evolution.

An extinct hominid could explain the history of humankind The deep learning analysis has revealed that the extinct hominid is probably a descendant of the Neanderthal and Denisovan populations. The discovery of a fossil with these characteristics this summer would seem to endorse the study finding, consolidating the hypothesis of this third species or population that coexisted with modern human beings and mated with them.

## Army researchers explore benefits of immersive technology for soldiers

In a recently published paper, Researchers at RDECOM's Army Research Laboratory, the Army's corporate research laboratory (ARL), in collaboration with the University of Minnesota and the U.S. Army's Institute for Creative Technologies at the University of Southern California surveyed potential methods for assessing the usefulness of immersive systems.

In addition, the researchers discuss the ARL-developed Mixed Reality Tactical Analysis Kit, or MRTAK, which functions as an experimental platform to perform these assessments during collaborative mission planning and execution. MRTAK is now being developed as the mixed reality module of project AURORA (Accelerated User Reasoning for Operations, Research, and Analysis), as AURORA-MR.

This research was recently presented at the 23rd International Command and Control Information and Technology Symposium held in Pensacola, Florida.

"Our survey of the existing literature determined that new methods and metrics are essential to ensure that future basic and applied research can efficiently and accurately assess performance differences between immersive technologies and traditional 2-D systems," said Dr. Mark Dennison, research psychologist in ARL's Battlefield Information Processing Branch stationed at ARL West in Playa Vista, California.

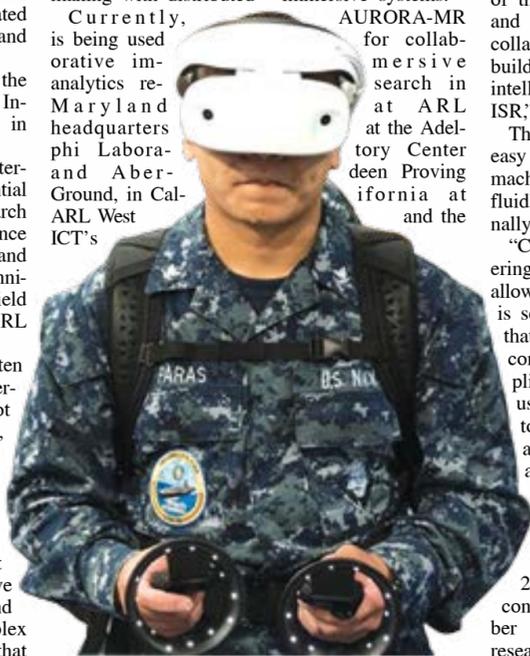
According to Dennison, their work has often shown that researchers in this field have performed studies where collected data do not allow for useful metrics to be reported on, making it difficult or impossible for key decision-makers to determine how, when and where immersive technology provides any benefit or deficit to specific mission or task needs.

"In this paper, we suggest a paradigm shift away from simply comparing non-immersive and immersive systems on similar tasks, and instead meticulously breaking down complex decision-making into component processes that

can be more accurately modeled and compared across disparate display types." Dennison said. "For example, when studying the planning of a tactical operation, such as the breach and clear of a hostile building, the same spatial information must be present in the 2D and VR experimental conditions to allow for precise quantitative comparisons.

As part of this research into collaborative immersive analytics, the researchers developed and deployed AURORA-MR, which serves as a test-bed to perform tightly controlled basic and applied research of multi-user decision making with distributed immersive systems.

Currently, AURORA-MR is being used for collaborative immersive search in Maryland at ARL headquarters and the Adelphi Laboratory and Aberdeen Proving Ground, in California and the ARL West ICT's



Mixed Reality Lab, and at the University of Minnesota.

The system has also been demonstrated to NATO SET-256, the Air Force's TAP Lab, and was featured at the AUSA 2018 Global Force Innovator's Corner.

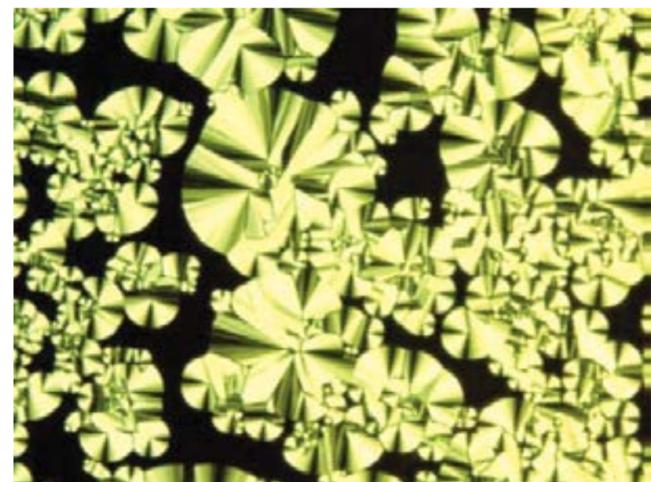
According to the researchers, research conducted with AURORA-MR will enable the Soldier to understand when visualizing and interacting with critical battlefield information might be best done in an immersive system, or in collaboration with others using traditional systems.

"Through virtualization of some or all elements of the Tactical Operations Center, commanders and intelligence analysts can communicate and collaborate without the constraints of a physical building and with a reduced footprint to enemy intelligence, surveillance and reconnaissance, or ISR," Dennison said.

The design of AURORA-MR seeks to enable easy integration with other databases, sensors and machine learning so that joint research can more fluidly occur internally across ARL and externally with their academic and industry partners.

"Currently, we are evolving the network powering AURORA-MR, called AURORA-NET, to allow for greater control over the information that is sent and received by clients, while ensuring that the virtual environment is rendered at a comfortable frame rate to minimize the crippling effects of motion sickness on immersed users," Dennison said. "This will enable us to conduct research on how ingestion and analysis of data from noisy systems, such as the Internet of Battlefield Things, can be augmented through distributed collaboration in mixed reality."

AURORA-MR started development as a single-user VR environment in December 2017. It is actively being developed and a connection was recently established in November 2018 allowing remote collaboration with researchers at APG.



## Engineers perform computational logic with light

For the first time, researchers performed logic operations -- the basis of computation -- with a chemical device using electric fields and ultraviolet light. The device and the pioneering methods used open up research possibilities including low-power, high-performance computer chips.

Computers need an upgrade. From smartwatches to data centers, all computers feature similar kinds of components, including processors and memory. These semiconductor chips comprise minuscule electronic transistors on beds of silicon. Such devices cannot be made much smaller because of how matter behaves at the quantum scale they're approaching. For this reason and more, engineers devise new ways and materials to perform logic and memory functions.

Doctoral student Keiichi Yano, Lecturer Yoshimitsu Itoh and Professor Takuzo Aida from the Department of Chemistry and Biotechnology at the University of Tokyo and their team developed a device which demonstrates functions useful to computation. Conventional computers use electric charge to represent binary digits (1's and 0's), but the engineers' device uses electric fields and UV light. These allow for lower power operation and create less heat than logic based on electric charge.

The device is also vastly different from current semiconductor chips as it is chemical in nature, and it's this property that gives rise to its potential usefulness in the future of computation. It's not just

the power and heat benefit; this device could be manufactured cheaply and easily too. The device features disk and rod-shaped molecules that self-assemble into spiral staircase-like shapes called columnar liquid crystals (CLC) in the right conditions.

"One thing I love about creating a device using chemistry is that it's less about 'building' something; instead it's more akin to 'growing' something," says Itoh. "With delicate precision, we coax our compounds into forming different shapes with different functions. Think of it as programming with chemistry."

Before a logic operation begins, the researchers sandwich a sample of CLCs between two glass plates covered in electrodes. Light that is polarized -- always vibrates in a single plane -- passes through the sample to a detector on the other side. In the sample's default state, the CLCs exist in a randomly oriented state which allows the light to reach the detector. When either the electric field or UV light is individually switched on then off, the detected output remains the same. But when the electric field and UV light are switched on together and then off again after about a second, the CLCs line up in a way which blocks the detector from the light.

If the "output" states of light and dark, and the "input" states of the electric field and UV light are all assigned binary digits to identify them, then the process has effectively performed what is called a logical AND function -- all inputs to the function must be "1" for the output to be "1."

## New 3D nanoprinting strategy opens door to revolution in medicine, robotics

Engineers at the University of Maryland (UMD) have created the first 3D-printed fluid circuit element so tiny that 10 could rest on the width of a human hair. The diode ensures fluids move in only a single direction - a critical feature for products like implantable devices that release therapies directly into the body.

The microfluidic diode also represents the first use of a 3D nanoprinting strategy that breaks through previous cost and complexity barriers hindering advancements in areas from personalized medicine to drug delivery.

"Just as shrinking electric circuits revolutionised the field of electronics, the ability to dramatically reduce the

size of 3D printed microfluidic circuitry sets the stage for a new era in fields like pharmaceutical screening, medical diagnostics, and microrobotics," said Ryan Sochol, an assistant professor in mechanical engineering and bioengineering at UMD's A. James Clark School of Engineering.

Sochol, along with graduate students Andrew Lamont and Abdullah Alsharhan, outlined their new strategy in a recent publication.

Scientists have in recent years tapped into the emerging technology of 3D nanoprinting to build medical devices and create "organ-on-a-chip" systems. But the complexity of pushing pharmaceuticals,

nutrients, and other fluids into such small environments without leakage - and the costs of overcoming those complexities - made the technology impractical for most applications requiring precise fluid control.

Instead, researchers were limited to additive manufacturing technologies that print features significantly larger than the new UMD fluid diode.

"This really put a limit on how small your device could be," said Lamont, a bioengineering student who developed the approach and led the tests as part of his doctoral research. "After all, the microfluidic circuitry in your microrobot can't be larger than the robot itself," Lamont explained.



## Amazon delivers parcels by robots

Amazon is experimenting with delivery robots, starting with a little truck called Scout which is taking to the pavements in Washington State.

Six of the autonomous electric trucks will deliver parcels "at walking pace" round Snohomish County.

The robots will only operate during the day and will be accompanied by an Amazon employee initially.

It is the latest in a series of trials of pavement robots, seen as being a good alternative to

road deliveries.

"We developed Amazon Scout at our research and development lab in Seattle, ensuring the devices can safely and efficiently navigate around pets, pedestrians and anything else in their path," said Amazon vice-president Sean Scott on the company's blog.

The truck is shown in a promotional video delivering a parcel, with a lid automatically lifting when the customer comes out of their house to retrieve the package. Details of how exactly this will work are not given. Neither is there any explanation for what happens if the customer is not in at the time of delivery.

Kiwibot delivery robot catches fire after 'human error'

Robot dons gown in virtual graduation ceremony

Amazon will not be alone in making such deliveries. Robotics firm Starship Technologies has also just announced a fleet of two dozen autonomous robots that will deliver coffee and pizza to college students in Virginia.

The robots can be requested via an app to deliver goods across the campus of George Mason University.

San Francisco has had delivery robots on its streets for several years, with tech start-ups, including Marble and Starship, leading the way.

But there has been something of a backlash, with some living there describing the robots as a menace and questioning how safe it was to share the pavements with them.

In 2017, city supervisor Norman Yee introduced legislation to restrict their use, including capping the number of permits issued at three per company and requiring the delivery bots to only operate within certain neighbourhoods. They must also be accompanied by a human at all times.



## PUBG to get paid subscription options

PUBG Mobile to soon release Prime and Prime Plus paid subscriptions for its users, will offer them a chance to convert their BP to UC.

The reports on Mr Ghost Gaming states that both these new subscription plans are currently being tested on the KRJP server of PUBG Mobile. It is yet unknown, when Tencent Games will be releasing these to everyone on PUBG Mobile's global server.

The new subscription-based membership will allow users to convert their collected Battle Points (BP) to Unknown cash (UC), which can then be used to purchase in-game skins, costumes and more.

The Prime subscription according to the report will be priced at \$0.99 (approximately Rs 70) per month and the Prime Plus subscription will cost users \$9.99 (approximately Rs 700) per month.

PUBG Mobile Prime subscription will get players 150 UC at the time of purchase. They will also get daily login rewards that will include UC, ID card and more. Players will be able to convert their BP to UC, however, it is said that this feature will have a limit of conversion per month.

PUBG Prime Plus subscribers will get 300 UC at the time of purchase along with 20 UC daily. Additionally, they will get a daily login bonus that will include UC, ID card and crate coupons.



## Flying car lifts off to revolutionise urban travel

Boeing took the first step in its plan to revolutionize urban transportation and parcel delivery services as its flying car prototype hovered briefly in the air during an inaugural test flight.

Boeing Co said its flying car prototype hovered briefly in the air during an inaugural test flight, a small but significant step as the world's largest planemaker bids to revolutionise urban transportation and parcel delivery services.

Boeing is competing with arch-rival Airbus SE and numerous other firms to introduce small self-flying vehicles capable of vertical takeoff and landing.

The investments, fueled by leaps in autonomous technology as much as frustration with road congestion, could change the face of the aerospace industry within the next decade.

Boeing's 30-foot-long (9 meter) aircraft - part helicopter, part drone and part fixed-wing plane - lifted a few feet off the ground and made a soft landing after less than a minute

of being airborne on Tuesday at an airport in Manassas, Virginia, Boeing said.

Major hurdles to Boeing's vision of "low-stress" mobility - as it is called in the company's marketing materials - include sorting out numerous critical safety and regulatory issues to meld traditional roadway traffic with fleets of flying cars.

Boeing is working with startup SparkCognition Inc and the U.S. Federal Aviation Administration to develop a traffic-management system for three-dimensional highways, as well as the regulatory framework that will allow waves of autonomous vehicles to zip safely around buildings, the company has said.

Boeing bought Manassas-based Aurora Flight Sciences last year to speed development of a fleet of autonomous air vehicles. With Aurora, Boeing is also working on Uber Technologies Inc's UberAIR service for flights that are planned to be available for order via smartphones around 2023.

Boeing is looking to achieve a range of 50 miles with two flying car variants capable of carrying two and four passengers each. Tests are planned for later this year on a package-hauling version that can lift up to 500 pounds (226.8 kg).



## Washington University tests elder care robot

A robot created by Washington State University scientists could help elderly people with dementia and other limitations live independently in their own homes.

The Robot Activity Support System, or RAS, uses sensors embedded in a WSU smart home to determine where its residents are, what they are doing and when they need assistance with daily activities.

It navigates through rooms and around obstacles to find people on its own, provides video instructions on how to do simple tasks and can even lead its owner to objects like their medication or a snack in the kitchen.

Minor works in the lab of Diane Cook, professor of electrical engineering and computer science and director of the WSU Center for Advanced Studies in Adaptive Systems.

Currently, an estimated 50 percent of adults over the age of 85 need assistance with every day activities such as preparing meals and taking medication and the annual cost for this assistance in the US is nearly \$2 trillion.

With the number of adults over 85 expected to triple by 2050, Cook and Schmitter-Edgecombe hope that technologies like RAS and the WSU smart home will alleviate some of the financial strain on the healthcare system by making it easier for older adults to live alone.

RAS is the first robot CASAS researchers have tried to incorporate into their smart home environment. They recently published a study in the journal Cognitive Systems Research that demonstrates how RAS could make life easier for older adults struggling to live independently.

## Upcoming features of WhatsApp

New features of messaging platform WhatsApp are coming which will surely make it more user-friendly and efficient. Have a look at all these upcoming features of WhatsApp.

**Dark Mode**  
Through this feature, WhatsApp users will have less strain on their eyes when they use WhatsApp on their phones.

The dark mode feature will also save battery consumption of the phone. This feature have already been inducted into Twitter and YouTube, and is soon going to be part of WhatsApp.

**Add Contact feature**  
With this feature, WhatsApp users will be able to add contact on WhatsApp without

exiting the app. When users will save contact on phone, WhatsApp will automatically detect the number. This will improve the current practice in which

Soon, the contacts will be ranked according to the volume of conversations one has with another user.

At present, the latest conversation comes at the top, but with this upcoming feature, conversations will be ranked according to volume. This app will soon come in iOS devices.

**Private reply**  
At pres-

ent, a message in a WhatsApp group is visible to all. But soon with Private Reply feature, one can privately message a particular member of the group. The messages will not be visible to other members of the group and will be delivered and seen by that particular member.

users have to leave the app to add the contact on WhatsApp.

**WhatsApp QR code**  
This feature will help users to share contact through QR codes. This will work only when both the users have the latest Android version on their phone.

**Ranking for contacts**



## Smart microrobots adapt to their surroundings

Group of scientists -- led by Selman Sakar at EPFL and Bradley Nelson at ETH Zurich -- drew inspiration from bacteria to design smart, biocompatible microrobots that are highly flexible. Because these devices are able to swim through fluids and modify their shape when needed, they can pass through narrow blood vessels and intricate systems without compromising on speed or maneuverability. They are made of hydrogel nanocomposites that contain magnetic nanoparticles allowing them to be controlled via an electromagnetic field.

In an article appearing in Science Advances, the scientists describe the method they have developed for "programming" the robot's shape so that it can easily travel through fluids that are dense, viscous or moving at rapid speeds.

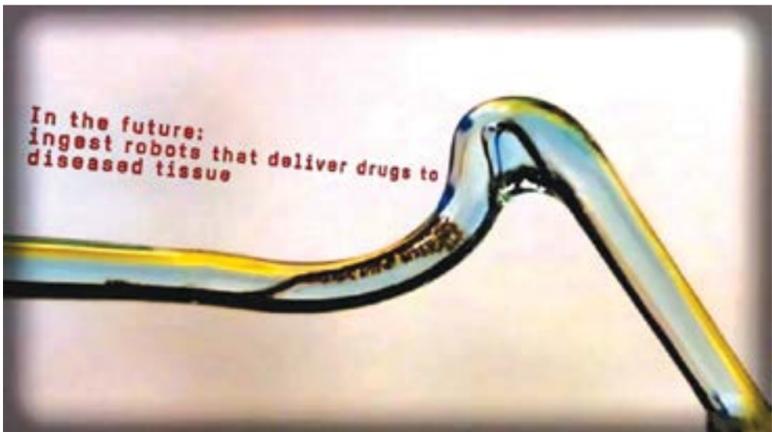
When we think of robots, we generally think of bulky machines equipped with complex systems of electronics, sensors, batteries and actuators. But on a microscopic scale, robots are entirely different.

Fabricating miniaturized robots presents a host of challenges, which the scientists addressed using an origami-based folding method. Their novel locomotion strategy employs embodied intelligence, which is an alternative to the classical computation paradigm that is performed by embedded electronic systems. "Our robots have a special composition

and structure that allow them to adapt to the characteristics of the fluid they are moving through. For instance, if they encounter a change in viscosity or osmotic concentration, they modify their shape to maintain their speed and maneuverability without losing control of the direction of motion," says Sakar.

These deformations can be "programmed" in advance so as to maximize performance without the use of cumbersome sensors or actuators. The robots can be either controlled using an electromagnetic field or left to navigate on their own through cavities by utilizing fluid flow. Either way, they will automatically morph into the most efficient shape.

"Nature has evolved a multitude of microorganisms that change shape as their environmental conditions change. This basic principle inspired our microrobot design. The key challenge for us was to develop the physics that describe the types of changes we were interested in, and then to integrate this with new fabrication technologies," says Nelson. In addition to offering enhanced effectiveness, these miniaturized soft robots can also be manufactured easily at a reasonable cost. For now, the research team is working on improving the performance for swimming through complex fluids like those found in the human body.



## 55% of PC software is out-of-date, putting users at risk : Avast report

Chennai: Avast, the global leader in digital security products, today revealed that more than half (55%) of PC applications installed worldwide are out-of-date, making PC users and their personal data vulnerable to security risks.

Avast's PC Trends Report 2019 found that users are making themselves vulnerable to hackers by not implementing security patches and keeping outdated versions of popular applications on their PCs. The applications where updates are most frequently neglected include Adobe Shockwave (96%), VLC Media Player (94%) and Skype (94%).

The report, which uses anonymized and aggregated data from 163 million devices across the globe, also found that Windows 10 is now installed on 40% of all PCs globally, which is fast approaching the 43% share held by Windows 7. "Most of us replace our smartphone regularly, but the same cannot be said for our PCs. With the average age of a PC now reaching six years old, we need to be doing more to ensure our devices are not putting us at unnecessary risk," said Ondrej Vlcek, President, Avast. "With the right amount of care, such as cleaning our hardware's insides using cleaners, optimization and security products, PCs will be safe and reliable for even longer."

More people than ever are opting for laptops, tablets, and 2-in-1 PCs running Windows. Although desktops are in no way obsolete, 67% of users are choosing laptops and tablets, letting them work, browse and stream on-the-go and this trend is likely to continue into 2019. This shift to mobile PCs is also reflected in the most installed applications. Google Chrome jumped to the top of the list in 2018, increasing its share of installs from 79% to 91% in the last 12 months.

Adobe Acrobat Reader (60%) came in as the second most popular, followed by WinRAR (48%), Microsoft Office (45%), and Mozilla Firefox (42%). Although the fourth most used application worldwide is Microsoft Office, this is also one of the most out-of-date apps. Globally, 15% of users still have the Enterprise 2007 version installed, even though Microsoft no longer issues security patches or bugs fixes for that product.

The Report also outlines the most popular PC brands, CPUs, RAM size and hard disks: Top five PC brands: globally, the most widespread PC brands are HP, Acer, Asus, Lenovo and Dell. Most CPUs are still dual-core, with 74% running on two physical cores and only 20% own a quad-core system. RAM: the most popular RAM size is four GB, which is enough for most day-to-day applications. HDD vs. SSD: only 15% of users own a fast SSD, the rest of users remain on either HDD or a HDD/SSD combo solution.

The full Avast PC Trends Report 2019 can be downloaded for free here.

## Apple AirPods with health tracking features expected soon

Apple will likely announce the second-generation AirPods, or AirPods 2 "sometime in the first half of 2019", reports Digitimes. The next-generation version of AirPods will feature new "health features", though the report does not offer details on what these features are.

AirPods have not seen any major update over the past few years since its launch in 2016. Last year, Bloomberg reported that AirPods 2 would include the W2 chipset that would enable "Hey Siri" functionality. Additionally, the W2 chipset will also improve its connection to the iPhone and likely offer improved battery life.





# Best bluetooth headsets coming

## PLANTRONICS VOYAGER 5200:



With most Bluetooth headsets, you'll get two or three microphones, but the 5200 ups the ante with four microphones to offer unparalleled call quality. Its noise cancellation paired with Plantronics' proprietary WindSmart technology mute distracting background sounds.

And it also has smart-sensor technology and voice recognition that automatically answers calls. It pairs to multiple devices via NFC or Bluetooth and you can dictate text messages, though it won't read incoming texts to you.

It features the familiar over-the-ear design of previous Voyager models, but the 5200 has a slightly shorter ear hook, so prepare for it to fit a bit differently than the Legend, if that's what you're used to. Plantronics claims up to seven hours of talk time, though when put to the test, the 5200 delivers closer to six — which is still a respectable spec.

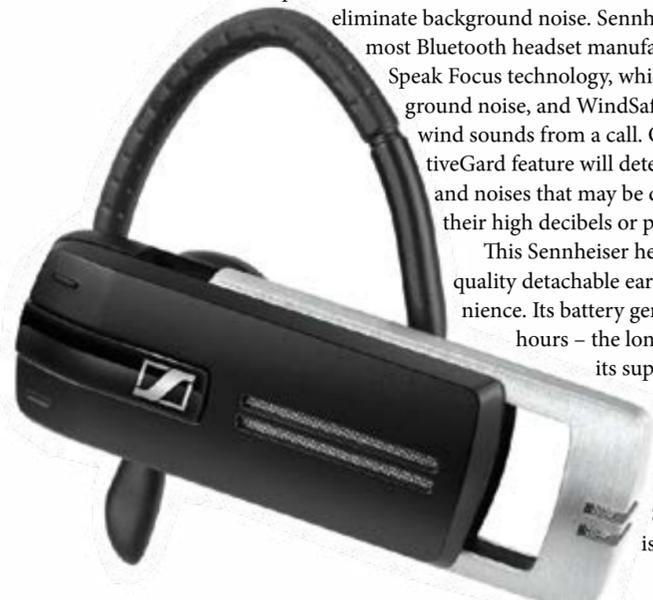
## SENNHEISER PRESENCE-UC:

The Presence-UC features superior sound thanks to their proprietary HD Voice Clarity Technology. This high-definition audio technology makes the call as clear as possible, not only on the wearer's side but on both sides of the connection.

The Presence has three microphones, rather than the usual two. The triple mics help to eliminate background noise. Sennheiser goes further than most Bluetooth headset manufacturers with Sennheiser Speak Focus technology, which eliminates most background noise, and WindSafe, which acts to eliminate wind sounds from a call. On top of all this, the ActiveGard feature will detect and eliminate sounds and noises that may be dangerous to the ear due to their high decibels or pitch.

This Sennheiser headset also features a high quality detachable ear hook for extra convenience. Its battery generally lasts for eight to ten hours — the longest on our list — thanks to its support for Bluetooth 4.0 LE.

If superior audio technology and sparkling sound is what attracts you to a Bluetooth headset, the Sennheiser Presence-UC is the top-quality choice.



## MPOW PRO TRUCK DRIVER BLUETOOTH HEADSET:



This Mpow Bluetooth headset does one thing and it does it right: calling. While it doesn't support listening to music, it enables crystal-clear calling even in noisy environments. Its 4X noise-canceling microphone blocks out background noise and it's also adjustable, so it will pick up your voice accurately. It pairs easily with up to two Bluetooth devices at once and callers can roam up to 30 feet before the connection starts to fizzle. The battery guarantees 12 hours of talk time or 200 hours of standby, plus it charges up via MicroUSB in just two hours.

The design is fairly old-school, but comfortable nevertheless, and a great option for those who don't want an in-ear design.

## SAMSUNG LEVEL U PRO:

Samsung's Level U Pro might not look like your traditional Bluetooth headset, but that's exactly the point. The addition of flexible urethane joints and a lightweight, ergonomic design make it fit comfortably around your neck. When a call comes in, the 6.4-ounce headset vibrates alerting you to the incoming call and allows you to place the headset in your ears and answer. Sure, it's an unusual style, but far more comfortable than the always-in-your-ear standard Bluetooth look that has existed for years.

The Level U Pro connects to any Bluetooth-compatible smartphone or tab-



let and pulls double duty as a musical headset as well. A set of buttons on the right side of the neckband allows for pausing and playing music, answering and ending calls, skipping tracks and lowering the volume.

The 13mm dynamic and 13mm Piezo speakers deliver high-quality and clear sound, as well as microphone noise reduction and echo cancellation. The U Pro is rated for nine hours of music playback and nine hours of talk time at moderate volume levels, which is fairly average at this price point.

## LG TONE FREE HEADSET:



LG took a crack at the "true wireless" earbud concept with the LG Tone Free headphones, and for the most part, they've done a really nice job. The LG Tone line features a few different versions of the "around your neck" headphone bar that contains buds meant for running, but only the Tone Free set actually removes the wire altogether.

The two buds are worn independently of the band, and you pop them right back into the band for both safe storage and as a dock for charging them. These headphones support all four Bluetooth connectivity formats: Advanced Audio Distribution, Audio/Video Remote, Handsfree, and Headset. So, not

only can you make and receive calls seamlessly on these buds, but you can get really powerful music playback, too.

That playback is powered by LG's impressive Advanced Armature Speakers, which offer mind-blowing sound quality for buds that only weigh 0.2 ounces each. LG has rounded out the package with text read-back features and the ability to auto-reconnect just in case your Bluetooth drops.

But features aside, the design alone on these is probably enough to sell you on making them your main Bluetooth accessory.

## PLANTRONICS VOYAGER FOCUS UC:



The Plantronics Voyager Focus looks noticeably different than the other headsets on this list. In fact, it looks more like traditional headphones. But this pair is built with comfort in mind. Ideal for office use and extended wearing, the Voyager Focus has soft, padded over-ear earpieces that won't drive you mad to get them to sit comfortably.

It also has a thin boom mic that extends out, and can be swiveled away when not in use.

If you need to drown out noisy office chatter, you can activate the noise-canceling feature, which works a bit better than others on this list considering the over-ear form factor.

When you're not using the headset, you can place the headset on its standing charge dock or juice it up via USB. It works seamlessly across Bluetooth-enabled devices and smart sensors answer calls automatically when you put on the headset. Likewise, you can mute by taking off the headset. On the downside, this is a Bluetooth-only set and some may miss the wired option, but it will certainly provide unrivaled comfort.

"If you can DREAM it, you can DO it."  
-Walt Disney

Future Bright

# How to Get and Stay Motivated?

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What stimulates you? What fires you up? With what are you energetic and excited about? What do you do to get encouraged? All you need is boosting your psyche. Motivation is about mental and human perspective. It is the way towards nurturing ability among the representatives to do work in the most ideal way. It is the demonstration of inspiring workers to accomplish hierarchical destinations. Motivation is to a great degree individual and specific to each and every person. What influences me is my passion, say even to your love, she gets propelled going to place of worship.

Motivation is an intricate and complicated task. Human needs are boundless and they are variable as indicated by time and circumstance. A fulfilled individual of the present may not be fulfilled later on. In a comparative way, even same people may not be inspired with comparable behaviour and workplace. Subsequently, an administrator must be more cognizant to inspire his staffs and to accomplish targets.

Often, people cast off the chances of lively employee with persuading means. They may be associated, yet motivation truly portrays the level of longing for individual feel to perform, paying little notice to the level of fulfillment. It is their business to spur delegates to do their occupations well. So how do chiefs do this? The answer is motivation in organization, the technique through which supervisors ask labourers to be productive and feasible. Certain individuals have found an adequate harmony between their commitment to others and their own particular desires and needs. This helps them to feel fulfilled and to remain positive. We see this about them at work and socially in light of the fact that it's reflected in their behaviour, their way to deal with life and the way they perform.

Imparting motivation isn't simple, yet it's important on the off chance that you need your workers to develop and remain happy with their occupations. It's the driving force that leads individuals to work harder, which means more efficiency for your company and the most vital contributing element to in general fulfillment, which prompts to higher employee retention. That being said, there isn't any single methodology that can mystically spur every one of your workers without a moment's delay and keep them inspired all through their business. Everybody is different, with interesting qualities and thoughts, and in the event that you need to be fruitful in imparting inspiration to everyone, you need to discover various methodologies to contact every person.

Here a leader plays a crucial role.

As a leader in an Organisation, individuals will look to you to set an example for whatever remains of the crowd. Will set a tone for them to follow, a hard working attitude, and preparation of qualities for the organization whether you intend to do directly or not, and setting the correct case can meaningfully affect the mindset of your gathering. For instance, in the event that you are positive and remain hopeful about everything, even notwithstanding huge difficulties, your staffs will be probably going to do model you. In the event that you set a case of energy and comprehension, your professionals will reflect you, and the whole culture of the workplace will turn out to be all the more encouraged. In a bigger organisation, it's vital to pass on this idea to every one of the leaders who work independently with others, particularly managers and bosses. Having reliable great cases no matter how you look



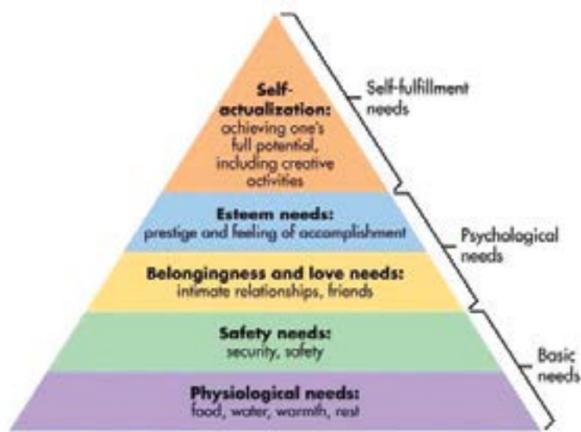
at it can significantly change the scene of your working environment.

Interpersonal relations, most likely, shape the key of workplace Motivation. When we discuss interpersonal relations, it is from the CEO to subordinate staff in the workplace. Numerous companies consistently train their workers formally by professional trainers so that entomb individual relations are very much kept up and projected objectives are accomplished. One ought to note that great relationships does not mean bargain in work. The relationship can be well maintained from the executive level to Supervisor with decisiveness in work territory yet at the same time propel their groups by setting up the affinity with every last individual from the group and supporting them on their individual issues.

Most employees need a bit of motivation to like their occupations and perform ideally. A few employees may be craving for cash while others discover acknowledgment and rewards expressly inspiring.

Incentives An incentive is a rousing impact that is intended to drive conduct and propel employees to deliver quality work. The employers utilize various types of motivations to increase production. Employee's incentives arrive in a variety of forms including paid time off, rewards, and money and travel advantages. These motivators drive employees inspiration since they offer workers more to make progress toward the target, than a regular salary check. This old fable can be a vibrant example for employees on motivation

There was an old donkey. One day coincidentally he fell into the rancher's well. The rancher has assessed the circumstance and contemplated internally, that neither the well nor the old donkey was justified regardless of the endeavours to spare them. He decided and chose to cover the old donkey with earth in the well, the neighbours assembled and they began to scoop soil into the well. The old donkey was panicked and insane in the first place. Yet, soon one cheerful thought struck a chord – each time when a scoop of soil arrived on



his back, he would shake it off and venture up!

He rehearsed these words to himself and once more: „Shake it off and venture up“. Along these lines, he could battle the frenzy and empower himself. After some time, the donkey had ventured over the well's divider. Although he was totally drained, he was the victor, he spared his own particular life. He chose to face his difficulty emphatically and not to surrender, and in this manner, he won. What seemed to bury him actually saved him, owing to his confidence and relentless efforts? Employees taking a cue out of this should follow the same when there are any negative remarks, bullying or provoking in work place.

## Maslow motivational hypothesis suggests

- Physiological needs, food, water, shelter, sleep etc. We can move up the hierarchy once this need is met.
- Safety; safety secured or to an extent financial safety is much need to function efficiently.
- Love and belonging: this comes next when the above two needs are met.
- Esteem comes when these needs are achieved, the level of self worthiness that others are very much aware of his competence and value.
- To achieve the above 4 tasks are not that easy, the person is ready to strive for highest level self actualisation. That is a state of self fulfillment, where people realise their highest potential.

Cognitive Evaluation Theory has two dimensions the intrinsic and extrinsic motivators.

This hypothesis proposes that there are really two inspiration frameworks: inborn and extraneous that compare to two sorts of motivators: natural motivators: Achievement, obligation and ability. The work force that originates from the real execution of the assignment or occupation is the characteristic enthusiasm of the work.

Intrinsic: Results, refinement, input, environment - things that originate from a man's domain, controlled by others. Either of these might be an even more capable motivator for a given person. Naturally, inspired people perform their own particular accomplishment and fulfillment. On the off chance that they come to belief that they are doing some work as a result of the compensation or the working conditions or some other outward reason, they start to lose inspiration.

According to Kevin Lee pages' the origin of motivation: It's in your head". The all important neuro transmitter dopamine has a great role to play. Investigations of dopamine started with delight until specialists started seeing exceptional wonders. They saw spikes in dopamine amid snapshots of high anxiety. Dopamine ascended on account of fighters with PTSD who heard gunfire. Stress and gunfire are not pleasurable marvels, yet their dopamine was high. Plainly dopamine went past unimportant pleasure, and it turns out dopamine's actual impact might be an inspiration. Dopamine plays out its undertaking before we get rewards, implying that its genuine occupation is to urge us to act and inspire us to accomplish or abstain from something terrible.

## Tips to stay Motivated:

Accomplishing objectives is not a matter of having "discipline".

It's a matter of rousing yourself, and keeping your emphasis on your objective.

Post a picture of your objective somewhere noticeable.

Envision your objective unmistakably, every day, for no less than 5-10 minute.

Break it into littler, smaller than normal objectives.

Discover Inspiration to remain propelled to accomplish long haul objective.

Give it time, be tolerant.

## New IELTS requirements for nurses

The Nursing and Midwifery Council (NMC) in the UK has announced changes to its English language proficiency requirements for overseas nurses and midwives wishing to work in the UK.

Under the change, nurses and midwives wishing to work in the UK will still be required to achieve a minimum overall score of 7.0 in IELTS. However, a 6.5 score in the Writing section of the test will be accepted alongside a 7.0 score in each of the Reading, Listening and Speaking sections of the test.

Commenting on the NMC announcement, Michael King, Managing Director, BC Examinations and English Services India, Pvt Ltd said, "The British Council is committed to creating opportunities for people to succeed in India and across the world. We look forward to continue providing support and guidance to those nurses and midwives looking to work in the UK, so that they may achieve the IELTS score requirements announced by the NMC." IELTS is the most widely used test of English for migration to Australia, Canada, New Zealand and the UK. It is recognised by more than 10,000 universities, schools, employers and immigration bodies, including all universities in Australia and the UK and many of the leading institutions in the USA.

## interview tips

The whole process of hiring isn't about opting for a candidate with required skill sets; instead, it encompasses the overall personality and behavioural analysis of a person.

The interviewer always looks for perfection a candidate with the right knowledge, quality skills, discipline, presentation, positive attitude, and much more.

## INTERVIEW TIPS FROM TOP CEOs:

### Do your homework well

Try and do a SWOT analysis of the organization. Find out what are they good at, not so good at and can be better at. And by homework I certainly don't mean going through a few pages of the website (while it is important as well). Make sure you have read up as much about the company, their businesses, P&L, read up their annual reports, went through the profile of the person(s) you are going to meet, read/ watch their interviews if they have done any.

Nothing puts off a prospective employer more than an unprepared or a casual candidate. Whatever your interest levels for a job are, it is very important to show the right intent.

### Make a crisp introduction

Always remember to make a brief and crisp introduction about yourself, cover both personal as well as professional summaries, cover your key milestones, and leave the field open enough for areas where you want the interviewer to focus upon.

All this should ideally not take more than 1.5-2 minutes, so that it gives both sides the chance to open up the conversation and get into more details on different subjects.



### Dress well for the interview

Never forgetto dress up well for an interview, and show that you want the job. Eventually, dressing up well will never harm, but may just help you get a job.

For men, it is always recommended to wear a nicely tailored formal suit (basic, solid and understated colors and not one of the brighter ones please), wearing a tie is recommended but optional, depending on your comfort levels, nature of the job being interviewed for, and some idea of the person you are meeting with.

For women, choice between wearing western formals or Indian ethnic like a saree always exists. Wear what you feel is comfortable, and again some idea on the culture in the prospective organization can give you an idea to choose between the two.

### Wear a smile

The most powerful and evergreen accessory to carry along for an interview is a smile. Always remember to smile, when you meet, greet and even during the course of the interview -- just a little, and not a wide grin though.

It always creates a positive impression, and creates a lasting image. A person is always more than likely to remember a person who was pleasing and maintained a nice smile.

### Ask relevant questions

Always remember to ask questions. Come prepared with a couple of questions that you would want to know from the prospective employer.

At the same time, a dumb question, or an unrelated question, or a self-explanatory question can equally tick the interviewer off, and can undo all the good work one may have done in the entire length of the conversation.