

GLIMPSES OF THE FUTURE

A monthly digest of technologies, developments and trends that may shape our lives. (If you would prefer not to receive these digests, flip back 'NO THANKS' and you will be removed from the list). For daily glimpses follow me on Twitter: @hammondfuturist

How A.I. Is Changing Human Resource Management

Artificial Intelligence systems are promising to [remake how we look for job candidates, get the most out of workers](#) and keep our best workers on the job.

These applications aim to analyze a vast amount of data and search for patterns—broadening managers' options and helping them systematize processes that are often driven simply by instinct. And just like shopping sites, the A.I.s are designed to learn from experience to get an ever-better idea of what managers want.



For example, a company can provide a job description, and A.I. will collect and crunch data from a variety of sources to find people with the right talents, with experience to match—candidates who might never have thought of applying to the company, and whom the company might never have thought of seeking out.

The Headset That Enables Sight-Impaired People To See

The visor that [allows legally blind people to see](#) is no longer Star Trek fiction. Leaps in augmented-reality technology are being used to help people with severely low vision gain back enough sight to function, and then some.



The eSight 3—which weighs less than a quarter of a pound and is operated by hand-held remote—captures the world through a camera system and then displays it on OLED screens that sit very close to the eyes.

Legally blind people often have some limited vision, and eSight's displays are tuned to make use of it. By dialing up contrast and allowing users to zoom in, it can dramatically amplify sight without a surgical procedure.

The eSight visor, in development for 10 years, is reaching a level of maturity. The third-generation, which is available now, weighs less, has a wider field of view and just looks cooler than earlier models.

Artificial Meat Makers Produce “Chicken” and “Duck”

Artificial meat maker Memphis Meats has now turned its attentions to poultry. The company has [announced](#) that it’s now made what it claims to be the first animal-free, lab-grown pieces of chicken and duck.



The resulting chunks of alterna-flesh have so far been crafted into two dishes: a coated and fried chicken strip, and a plateful of duck à l’orange.

If companies like Memphis Meats can successfully grow their wares at scale, meat-eaters could satisfy their desire for animal-flavored proteins without bumping into the issues of animal cruelty associated with our carnivorous lifestyles. Given the right conditions, a few cells could turn into billions of chicken strips.

So, will KFC be frying up finger-lickin’ lab-grown chicken any time soon? Unlikely, for several reasons. For one thing, lab-grown meat is a long way from being mass-produced, so scale remains an issue. But the most problematic from the consumer perspective is cost.

Memphis Meats reckons that it can produce a pound of its animal-free chicken for \$9,000. That’s less than half what its beef cost just over a year ago, but it’s clearly way more than even the most inquisitive and guilt-wracked of foodies would

How A.I. Will Soon Spot Liars In Interviews And Business Deals

By incorporating sensors (cameras, etc.) Artificial Intelligence will soon be able [to sense, and remember, pupil dilation](#), mannerisms, the amount a human is sweating and other biological signs of stress (bluffing) to advise human masters and to empower its own decision-making.

In business, military, government and diplomacy activity, A.I., possibly embedded in a robot, becomes an invaluable aid in negotiations to assess whether the negotiator on the other side has a strong or weak position.



This would be bad if you were a small-business owner negotiating with a larger company enabled by A.I., but perhaps in childcare it could help guide children away from lies and deceit.

Teddy Bears That Spy On Their Owners (and then leak their data)

A company that sells [internet-connected teddy bears](#) that allow kids and their far-away parents to exchange heartfelt messages left more than 800,000 customer credentials, as well as two million message recordings, totally exposed online for anyone to see and listen, it is claimed.

spend on ingredients.

The Robot That Can Flip Burgers All Day Long

To help keep human cooks out of harm's way while fulfilling our collective appetite for burgers, Pasadena-based [Miso Robotics](#) is rolling out a new "robotic kitchen assistant" called Flippy



Miso Robotics was funded in part by the quick service restaurant, [CaliBurger](#), which makes and sells "California style burgers," and operates in 12 countries today. [Canyon Creek Capital](#) and individual angel investors have also contributed funding to help Miso Robotics get started.

All of Miso Robotics employees went to work in CaliBurger kitchens as grill cooks before and while working on the original design of Flippy. Getting behind the grill and cooking with and without Flippy is a regular part of Zito's job, the CEO said. Now, CaliBurger has committed to using Flippy in 50 of its restaurants, at least, over the next two years. It has already been testing Flippy in a Pasadena restaurant, the companies said.

The Store With No Staff That Let's You Pay By App

Innovative Swedish company Wheelys is opening up [the world's first app-controlled, staff-free convenience store](#) in Shanghai. Accessible 24 hours a day, seven days a week, the prototype store is designed to make it cheaper and easier for small businesses to get into the retail game.



Since Christmas day of last year and at least until the first week of January, it is alleged that [Spiral Toys](#) left customer data of its [CloudPets](#) brand on a database that wasn't behind a firewall or password-protected. The [MongoDB](#) was easy to find using [Shodan](#), a search engine makes it easy to find unprotected websites and servers, according to several security researchers who found and inspected the data.

The exposed data included more than 800,000 emails and passwords, which are secured with the strong, and thus supposedly harder to crack, hashing function bcrypt. Unfortunately, however, a large number of these passwords were so weak that it's possible to crack them, according to Troy Hunt, a security researcher who maintains [Have I Been Pwned](#) and has analyzed the CloudPets data.

Fiction becomes fact: I imagined a very similar scenario in my 2001 novel "[Emergence](#)".

DeepMind A.I. "Saving NHS Nurses Two Hours A Day"

DeepMind, Google's London-based AI arm, has [proved controversial](#) with its data sharing deals with the NHS but the NHS Royal Free London hospital, which has been using the firm's app to detect early signs of kidney failure, has come out in defence saying the [technology](#) is saving staff time.



Wheelys started out in 2014 [designing modular bike-cafes](#) with a view of selling the bikes cheaply to those who couldn't afford the cost of opening a bricks and mortar cafe. The conceit was extraordinarily successful, and by late 2016 the company had rolled out over 550 bikes across 60 countries.

Now the company is attempting to do a similar thing with its Wheely247 concept. After a successful regional test store set up in a small Swedish town last year, this Shanghai store is Wheelys proof-of-concept for a busier, urban environment.

Second Robot-Staffed Hotel Opens In Japan

They may be gimmicks, but [hotels staffed by themed robots](#) are proving popular at leisure resorts. Major Japanese travel provider H.I.S. Co. is now celebrating the opening of its second robot-staffed Henn na Hotel. The new location is near the Tokyo Disney Resort in Urayasu, Chiba Prefecture.

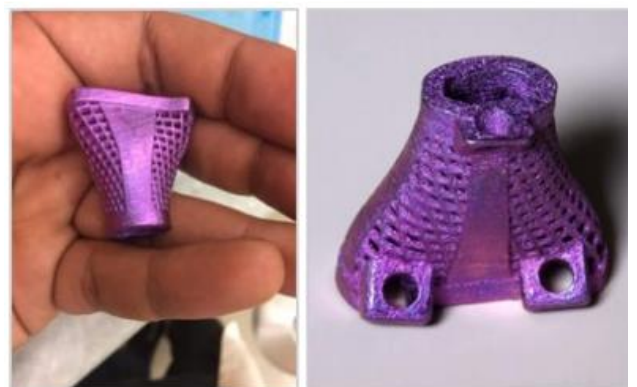


In November 2016, a [revised deal](#) between the NHS and DeepMind was published that outlined how the artificial intelligence company would use patient data to deliver early warning signals as part of a five-year contract.

The system in use is called Streams and sees patient data being scanned by the app to predict when an acute kidney injury (AKI) is likely to occur. "Within a few weeks of being introduced, nurses who have been using Streams report it has been [saving them up to two hours every day](#), which means they can spend more time face-to-face with patients," the Royal Free said in a statement.

3-D Printed Vertebrae Repair Damaged Spines In India

Doctors in India, a country that has been basking in its [recent record-breaking satellite launch](#), have completed the nation's [first 3D-printed spinal restoration surgery](#).



The “Henn na” name is a play on a Japanese word meaning strange.

It is the company’s first opening of a hotel staffed by robots in the Kanto region, and there are plans in the works to launch 100 more, including overseas, within the next five years.

The aim of Henn na Hotel “is not about being strange, it’s about transforming and evolving,” Hideo Sawada, founder and chairman of H.I.S., said during an opening ceremony. “Having robots in charge of the reception and placing robots everywhere, we aim to make it the most efficient hotel in the world,” he said.

Sawada said the company decided on Urayasu for its new location — called Henn na Hotel Maihama Tokyo Bay —because of its proximity to the Disney resort. He said the entertainment aspect of the hotel could match the tastes of those who visit the theme park and vacation resort.

Neanderthals Had Pain-Killers, Antibiotics and, Probably, Recreational Drugs

[Scientists from the University of Adelaide](#) and the University of Liverpool have analyzed the teeth of Neanderthals found in two European caves, and learned that not only did they eat a wide variety of food, but they may have even been the first to discover the pain-killing effects of certain plants and moulds.



Teeth from our closest extinct relatives have taught us plenty about them in the past, busting

The patient, a 32-year-old Indian woman, lost her ability to walk due to a severe case of tuberculosis. The disease commonly affects the lungs, but it traveled to the woman’s spinal cord when her immune system was particularly weakened by drugs she was prescribed for infertility. The tuberculosis compromised her first, second, and third cervical vertebrae, removing support for both her skull and lower spine.

A team of surgeons led by Dr. V Anand Naik, a senior consultant of spine surgery from the [Medanta Bone and Joint Institute](#), replaced the damaged vertebrae with a 3D-printed titanium copy. Using CT and MRI scans as reference, they first 3D printed a dummy spine that was perfectly sized for the patient’s needs.

The patient was expected to recover fully in two weeks and thereafter to live a normal life

Companies Start To Raise Money By Issuing Virtual Coins

This month a venture capital firm called Blockchain Capital plans to do something that could change the way companies get funded—and perhaps even the way they operate. Instead of an Initial Public Offering, in which a company sells stock via a regulated exchange like Nasdaq, the San Francisco-based VC firm is making an [Initial Coin Offering](#), selling its own digital token as a way of raising money for its latest venture fund.



the myth that they were predominantly meat-eaters, and suggesting they may even have cleaned up with [toothpicks](#) after a hearty meal.

Examining dental calculus, or hardened plaque, is great at filling in these blanks, because it preserves traces of their dinner's DNA, as well as the bacteria that called Neanderthal mouths home.

And recent research into [animal consumption of recreational drugs](#) suggests that it's highly likely that Neanderthals also consumer alcohol and other pleasure-giving drugs.

Anyone who buys a token will be buying into the fund.

Yes, they call it an ICO, and over the last 14 months, more than 60 startups, open source projects, and ragtag online communities used this method to raise over \$250 million for their own business efforts.