

Weekly Discovery

We SHARE to inspire and ignite ideas!

23 April 2018 - 27 April 2018

ARCHITECTURE

Origami-Inspired Skyscraper Which Can Be Folded and Flown into Disaster Zones Wins Architecture Competition

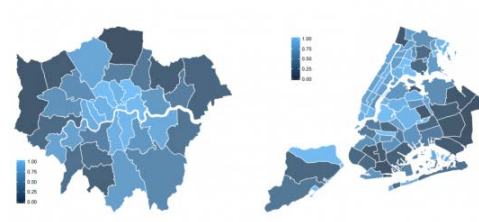


This article features an origami inspired skyscraper design named Skyshelter.zip, which won a skyscraper competition and has a foldable structure that can be dropped into disaster zones to provide temporary refuge.

Source: [The Independent](#) (22 April 2018)

CITIES

Data Mining Confirms That Culture Makes Cities Richer

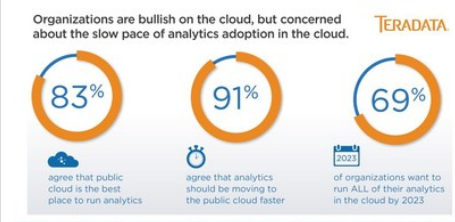


Researchers have found a way to measure cultural capital in cities and its contribution to their success using photos shared on Flickr, which provided valuable insights into the way cultural activities stimulate urban development.

Source: [MIT Technology Review](#) (23 April 2018)

CLOUD ANALYTICS

Survey: Companies Are Bullish on Cloud Analytics, But Need to Speed Up the Pace

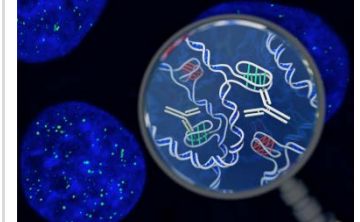


Business transformation towards cloud analytics is in full swing today. However, performance gap still exists when running cloud workloads on a large scale. Read the full report at [Teradata](#).

Source: [Markets Insider](#) (23 April 2018)

DNA

Found: A New Form of DNA in Our Cells



A "twisted knot" structure of DNA has been newly discovered in human cells, enabling future studies on why this DNA bit exists and how it is going to impact human health. Read more at [Nature](#).

Source: [SCIMEX](#) (24 April 2018)

ENTREPRENEURSHIP

Outpacing Goliath



The failures of large corporations are opportunities for smaller competitors. A feature of case studies where profits were made by spotting failures.

Source: [Entrepreneur](#) (April 2018)
Available @ SUTD Library (Call Number HF5001 ENT)

GRAND PRIX

The Halo Effect

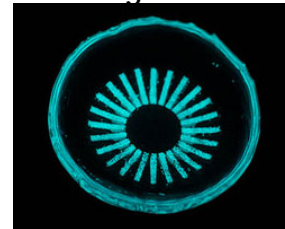


Formula 1 2018 looks set to be another interesting season with a newly designed head protection system called Halo. While the design looks impressive, airflow issue and its weight have drawn negative feedback.

Source: [Racecar Engineering](#) (April 2018)
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HEALTHCARE

Glowing Contact Lens Could Prevent a Leading Cause of Blindness



Diabetic retinopathy disease deprives the resting diabetic patients' retina from receiving sufficient oxygen. Read on to find out how the glow from this contact lens deters the oxygen deprivation. Also read the [Filed Patent](#).

Source: [Caltech](#) (23 April 2018)

HEALTHCARE CHRONOTHERAPY

Medicine's Secret Ingredient — It's in the Timing

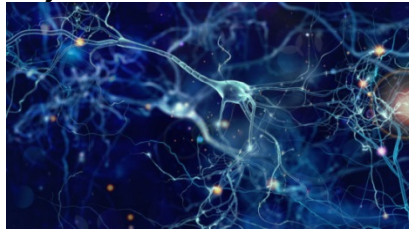


Did you know that taking medicine according to your body clock could be more effective? Find out more about chronotherapy through a number of highlighted studies.

Source: [Nature](#) (17 April 2018)

MOLECULAR NEUROSCIENCE

3-D Human "Mini-Brains" Shed New Light on Genetic Underpinnings of Major Mental Illness

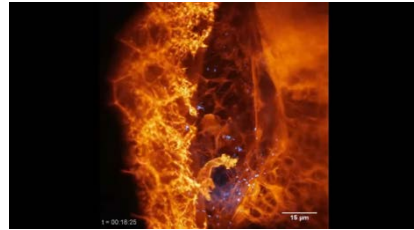


Advancement in human stem cells allows researchers to grow mini-organs in labs and use gene-editing tools to insert mutation into the cells. In addition, learn more details at [Nature](#).

Source: [Brigham and Women's Hospital](#) (19 April 2018)

OPTICS

Cutting-Edge Microscope Spies on Living Cells Inside the Body

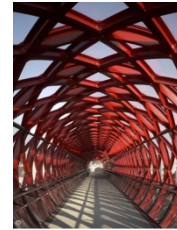


Researchers successfully created a microscope that combines lattice light-sheet microscopy with adaptive optics techniques, paving the way for imaging cells in living tissue.

Source: [Nature](#) (19 April 2018)

PEDESTRIAN INFRASTRUCTURE

15 Innovative Pedestrian Bridges



Bridges are important in connecting spaces but often one of the underrated pedestrian infrastructures. Take a look at these 15 fascinating bridges and their underlying construction concepts.

Source: [ArchDaily](#) (22 April 2018)

SMART ROOMS

Wall++: Room-Scale Interactive and Context-Aware Sensing



What if current motionless physical WALLS can interact? A low-cost wall treatment and sensing hardware made the WALLS functional by detecting touch, motion, posture and noise. Watch this 2-min [video](#). Source: [Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems](#) (21 April 2018)

SOLAR CELLS

Solar Cells That Work in Low Light Could Charge Devices Indoors

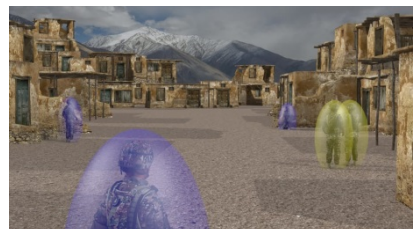


The latest developed [dye-sensitized solar cells \(DSSCs\)](#) can optimally charge under dim light conditions and are cheaper to be manufactured. Also read about [nanoparticles](#) that can capture unseen light for solar energy conversion.

Source: [Science](#) (23 April 2018)

STEALTH TECHNOLOGY

How Raytheon's "Soldier in a Bubble" Technology Could Save Lives



Read about a new concept of how data could be shared amongst soldiers without being intercepted through a new stealthy technology, allowing soldiers to communicate securely during warfare.

Source: [Fast Company](#) (20 April 2018)

URBAN DESIGN

Breaking New Ground



Read about five different large scale urban-regeneration projects all around the world, transforming entire city neighbourhoods into communities and ageing districts into vibrant homes.

Source: [Monocle](#) (May 2018)
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VIDEO STREAMING

This Video Streaming Breakthrough Could Lead to Smart Glasses You Might Actually Want to Wear



A new [technique](#) that cuts down the power consumption of broadcasting high definition videos by 10,000 times, paving the way for future wireless video streaming without the need of power supply.

Source: [Gizmodo](#) (20 April 2018)

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