

Weekly Discovery

We SHARE to inspire and ignite ideas!

5 February 2018 - 9 February 2018



SPECIAL FEATURE by SUTD LIBRARY

HOW APPS ARE CHANGING THE WORLD

Almost a decade ago, app stores from Apple and Google were launched. Little did we know, apps would change the way we do things and enrich our lives. Apps serving specific functions can be easily downloaded onto a mobile phone and they can do transactions or check information almost instantly. One can do your retail therapy by tapping your phone from your bed instead of heading down to the city. Settling payments at the stores are easier too with apps like Paylah, Alipay and a host of banking apps. This reading list contains 28 publications over the past 5 years and aims to provide rich resources from various topical perspectives.

[DOWNLOAD](#)

ARTIFICIAL INTELLIGENCE

A Special Report on Artificial Intelligence

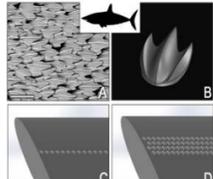


Artificial Intelligence is the hottest buzzword in the technology sector today. Check out how it has been applied in various fields, including data analytics, healthcare, transportation, and more.

Source: [Texas Advanced Computing Center](#) (January 2018)

BIOMIMETICS

Using Shark Scales to Design Better Drones, Planes, and Wind Turbines



The bio-inspired design from shark has a commandable control over the air flow. This in turn could enable better performance of wind turbines and drones.

Source: [Harvard Paulson School](#) (6 February 2018)

CAPITAL MARKET

2018 Long-Term Capital Market Assumptions

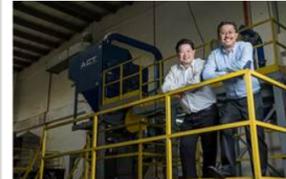


Wondering how technologies will influence world economy or which industries are more investable? Read on the [report](#) where JP Morgan shares on issues that will have significant impacts on 2018 investment landscape.

Source: [JP Morgan](#) (January 2018)

ENTREPRENEURSHIP

The Green Changemakers



Have a peek into the entrepreneurs who took an untraveled path to success and their fundamental beliefs that formed the strong foundation for their business growth.

Source: [Entrepreneurs' Digest](#) (Jan / Feb 2018)
Available @ SUTD Library (Call Number HB615 ENT)

GENE EDITING

Making Pigs Leaner Through CRISPR



Researchers found a gene in certain pig breeds which enables pigs to survive in cold environments. A new gene-editing technique may be developed to reduce cold-related neonatal mortality and improve pig meat trait. Read more at [PNAS](#).

Source: [Asian Scientist](#) (Jan - Jun 2018)
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HEALTHCARE

Study Sheds New Light on Antibiotics Produced by Ants

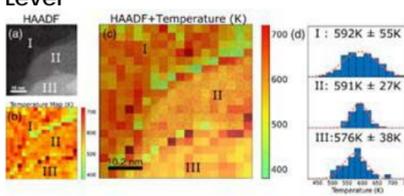


Antimicrobials obtained from the venom of ants act as antibiotics against certain bacterial infections. In future, these antimicrobials may even be used for human treatments.

Source: [Phys.org](#) (6 February 2018)

MICROPROCESSOR

Measuring the Temperature of 2-Dimensional Materials at the Atomic Level



A scanner that precisely measures the temperature and behaviour of two-dimensional materials, allowing engineers to design smaller and faster microprocessors. Also read at [APS](#).

Source: [University of Illinois at Chicago](#) (2 February 2018)

OPINION

What It's Like to Live in a Surveillance State



An article about modern panopticism occurring in northwestern China where Uighurs, the Turkic-speaking ethnic group native to the nominally autonomous region of Xinjiang, is constantly tracked using modern surveillance devices.

Source: [The New York Times](#) (3 February 2018)

PERSONALISED MEDICINE

Printable, Edible QR Code Offers Promise for Personalized Medicine



Inkjet printed doses onto edible material in the form of QR code opens new door towards personalised medication. Scanning the QR code allow one to retrieve full details of the drugs as well. Learn more from the [video](#) and [publication](#).

Source: [R&D Magazine](#) (2 February 2018)

PHYSICS

The Science of STAR WARS: How Our Laws of Physics Apply in a Galaxy Far, Far Away



We know how STAR WARS machines stole our hearts. Access the copy from SUTD Library to have a closer look at the thought processes that went into designing these machines.

Source: [How It Works](#) (Issue 106)
Available @ SUTD Library (Call Number Q162 HOW)

QUANTUM COMPUTING

The Era of Quantum Computing Is Here. Outlook: Cloudy



This article gives an outlook into quantum computing, exploring possible solutions to the challenges and difficulties scientists are facing in its implementation. Examples of ongoing projects from IBM and Microsoft were cited in this article.

Source: [Wired](#) (4 February 2018)

VACCINE

Cancer "Vaccine" That Wipes Out Tumors Ready for Human Trial



Possible cancer cure? Patient's own immune cells can now be reactivated to fight off cancer from the inside. This can be done by injecting a compound into the tumour, destroying only the cancerous masses present in the body. Read also at [Science](#).

Source: [Futurism](#) (2 February 2018)

VIRTUAL REALITY

Mind Games



The world's first mind-controlled VR game, through the use of a VR headset and a brain-scanning headband. Without hand controllers, this intuitive brain controller would be the next breakthrough in VR.

Source: [IEEE Spectrum](#) (January 2018)

WALKABILITY

A New Study Confirms Walkable Cities Are Better for Blood Pressure

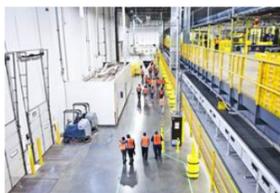


Read about the [study](#) that surveyed around 430,000 U.K. residents from 22 cities, which concluded with a strong positive association between a neighbourhood's "walkability" and lower blood pressure, fewer incidences of hypertension.

Source: [Architectural Digest](#) (5 February 2018)

WEARABLES

If Workers Slack Off, the Wristband Will Know. (And Amazon Has a Patent for It.)



What if your every move will be tracked and identified? Is future technology enslaving human workers as robots? Check out the technologies developed by Amazon and a few other companies.

Source: [The New York Times](#) (1 February 2018)

WIRELESS ENERGY

Clemson Researchers Blaze New Ground in Wireless Energy Generation for Future Electronic Gadgets



A device that can generate a maximum of 3,000 volts, resulting an electrical field that can be sensed wirelessly. Such cleaner ways of energy generation would be especially helpful to developing countries.

Source: [Clemson University](#) (5 February 2018)

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