

Weekly Discovery

We SHARE to inspire and ignite ideas!

31 October 2016 – 4 November 2016



SPECIAL HIGHLIGHT

GAMING LANDSCAPE

According to Newzoo' Global Games Market Report, the gaming market is poised to reach US\$99.6 million in 2016. Notably, the mobile gaming market share will overtake the PC with an impressive figure of US\$36.9 million. The trend for the industry is growing towards games with all round entertainment franchises.

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ARCHITECTURAL EVALUATION

How New Video-Game-Inspired Tools Are Redefining Post Occupancy Evaluation



Gamification provides simulations to enhance post-occupancy evaluation which allows architects to ensure the success of building projects. Arup has been creating post-occupancy evaluation preconstruction projects from train stations to hospitals using 3D models and video-game engine.

Source: [ArchDaily](#) (1 November 2016)

CAMERA MONITORS

Smart Camera System Checks Patients' Vital Signs From Afar

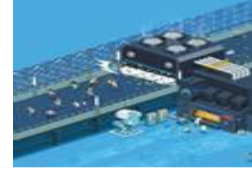


Without any sensor attached to the human body, this camera monitoring technique is able to measure a person's condition remotely, such as heart rate, breathing and blood oxygen. Learn more about the technology at [Oxehealth](#).

Source: [Technology News](#) (26 October 2016)

CAREERS

The Plight of Young Scientists



A special issue discusses the challenges faced by today's young scientists when they take on their first job, and offers some opinion and insight on how to overcome the barriers. Contains infographic, news feature, commentary, and more.

Source: [Nature News Feature](#) (26 October 2016)

CULTURE

Why the Industrial Revolution didn't happen in China



This article is a transcript of an interview with Joel Mokyr, an economic historian from Northwestern University. He explains why he believes that the Industrial Revolution occurred in Europe, but not in China, despite China's relatively greater scientific growth.

Source: [The Washington Post](#) (28 October 2016)

ELECTRONICS

New Transistor Could Let Devices Run on Practically No Battery

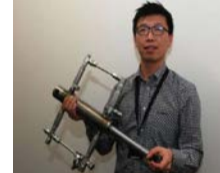


Scientists designed a transistor that enabled devices to work for months or even years, without batteries. This technology could find applications in wearable or implantable electronics for the healthcare sector. Read more about these transistors at [Science](#).

Source: [Popular Mechanics](#) (26 October 2016)

ENERGY HARVESTING

Breakthrough in harvesting energy from automotive shock absorbers



A PhD student from China has made the discovery that energy can be [harvested](#) from the shock absorbers of cars. His system will subsequently be installed and verified in an existing car and it could eventually be extended to trains. Read the full paper at [Energies](#).

Source: [Phys.org](#) (28 October 2016)

ENTREPRENEURSHIP

Six Insights From The Innovation By Design Summit



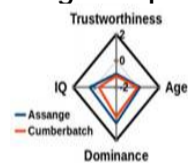
Source: Maritz.com

Six observations from the Innovation by Design Summit are shared in this article. They include the need for company-wide consensus for successful innovation and that company culture is vital for innovation.

Source: [Forbes](#) (30 October 2016)

PATTERN RECOGNITION

Machine-Vision Algorithm Learns to Judge People by Their Faces



Researchers have put together a computer that can determine the character trait of the person using their face. Initial results show similar values of trustworthiness, dominance, age as perceived by humans. Read the paper at [Computer Vision and Pattern Recognition](#).

Source: [MIT Technology Review](#) (1 November 2016)

SMART HEALTHCARE

Technologies Empowering Smart Healthcare



Discover in this 113-page report how technology is enabling development of new treatment, services, devices and diagnosis. Also get a view of the trends, opportunity and main players.

Source: [Technical Insights Report](#) (25 October 2016)

SOLAR ROOF

No One Saw Tesla's Solar Roof Coming

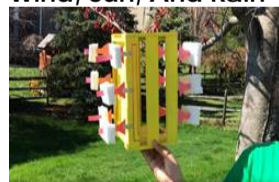


Roof tiles made of glass that contains solar cells. These tiles come in a variety of designs that can replace traditional roof tiles while retaining the aesthetic. With this addition to its car and high capacity batteries, Tesla has a complete set for a green energy lifestyle.

Source: [Bloomberg.com](#) (31 October 2016)

SUSTAINABLE ENERGY

This Ninth Grader Invented A Cheap Device That Harvests Power From Wind, Sun, And Rain



A low cost prototype device costing only \$5 has been developed by a young inventor to harness vibration energy from wind, sun and rain to generate electricity. Her device has 3 redundancies for wind, sun and rain to cater for the possibility that one source may fail. She has won the Discovery Education 3M Young Scientist Challenge.

Source: [Fastcoexist.com](#) (31 October 2016)

UPGRADING SKILLS

How digital readiness affects job retraining for labor market growth



Reports show that in 2015, jobs requiring higher levels of education, training and experience have risen by 68%. These jobs require higher-order thinking and technical skills. However the path towards retraining remains daunting as majority lack in "digital readiness". Read also the report from [Pew Research Center](#).

Source: [Brookings](#) (27 October 2016)

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