

The Future of Health and Education on the Sunshine Coast

Collaborating on region wide challenges
SCBC Combined Government and Business Forum

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The macro trends affecting the health and education sector are relatively well known...



Education

- Increasing but lagging participation
- Increasing competition
- Increasing mobility
- Changing skills needs

Health

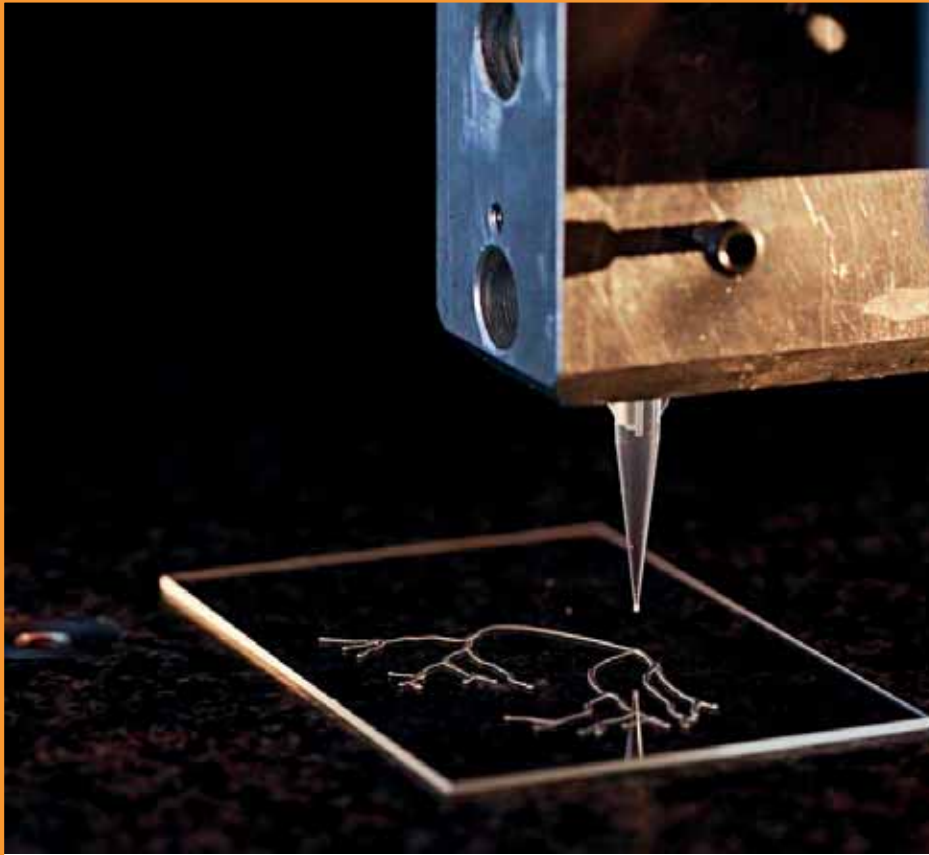
- Ageing population
- Increasing cost of care
- Heart disease on the rise
- Mental health burden increasing



The future of health and education on the coast will be driven by innovations on the near horizon



3D Printing is revolutionising the prosthetics industry and enhancing education through rapid prototyping



Kids in classrooms have access to a growing database of 3D printed fossils.



3D printed airway splints can be customised, cost \$10/unit, and take hours to make.

Virtual and augmented reality bring interactive content and contextual knowledge to both medical delivery and training



'Accuvein' increases the accuracy of injection by 3.5 times, and has been used on more than 10 million patients across the US.



Microsoft HoloLens can train medical students and simulate surgery. It is being trialled at Case Western Reserve University.



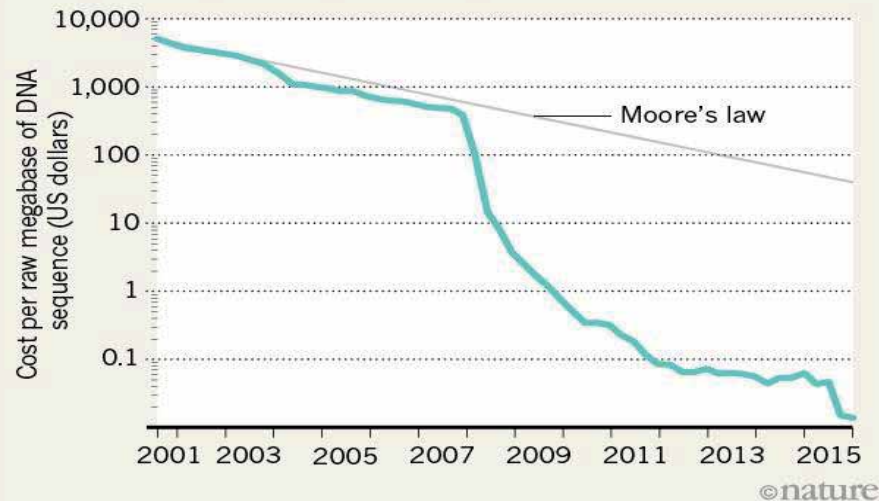
The CAVE 2 studio provides an immersive experience that accelerates and deepens student learning at USC.

Big data and data analytics underpin more personalised healthcare and adaptive learning

Advances in genomic technology are enabling treatments to be targeted to a patient's unique genomic profile.

PLUNGING COSTS OF SEQUENCING

Since 2008, new sequencing technologies have driven the costs of DNA sequencing down faster than the rapid improvement in microprocessor power represented by Moore's Law.



A number of tools have been developed allowing Australian students to give feedback to their teachers.



mozilla
OpenBadges



**SMART
SPARROW**

Modularisation and learning analytics enable targeted and adaptive teaching.

Drones will create an entire industry, including in delivery of health therapies, but education sector must supply the skills



Drones in Rwanda are capable of 50 - 150 daily deliveries of blood/emergency medicine.



IAG mobilised drones to inspect properties devastated by Christmas Day fires before access was granted by authorities.



The rise of drone technology creates demand for new skills in mechanics and geospatial analysis.

New business models will continue to bring together demand and supply



The Victorian Government has signed a deal with Airbnb to provide accommodation to displaced person and emergency workers.



Bondi Labs have developed a smartphone app to deliver experiential training to farmers in remote areas across the developing world.



Intergenerational care is a positive approach to meeting increasing needs for care. A feasibility study is being conducted by Griffith University.

There are five good reasons why the Sunshine Coast can enjoy the fruits of the new economy

1. The opportunities are significant. The new economy will not be contained in a small number of neighbourhoods.
2. Growth is accelerating. What took 15 years can now take 5.
3. Growth in mature segments and business growth doesn't need to be in Silicon Valley.
4. Talent is searching for meaning and liveability.
5. Technology companies are increasingly multi-sited and footloose.

The opportunities for the Sunshine Coast can be captured or cultivated with concerted effort to attract, support and lead



Dare to fail

**Make innovation a leader's
primary responsibility**

**Start them
young**



Attract risky capital

Attract Stars



**Provide a
sandbox**

**Embrace
digital**

**Create
spaces**

**Support
institutions**