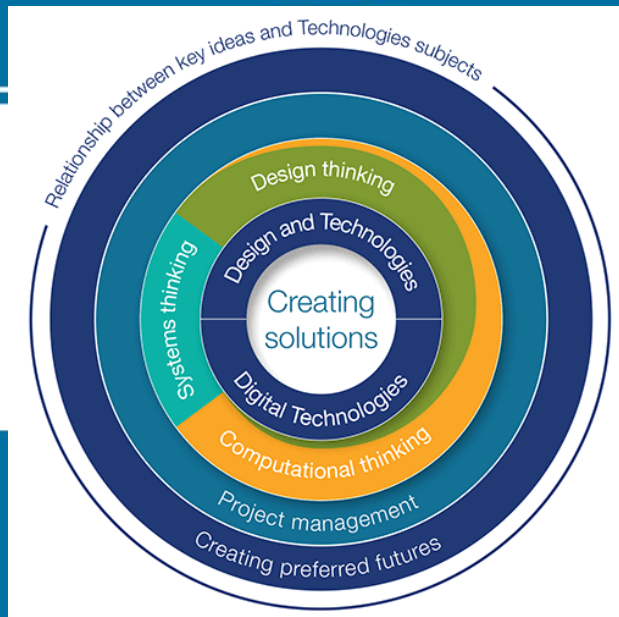
Supporting implementation of the Australian Curriculum: Digital Technologies



Julie King
Curriculum Lead, Technologies

31 March 2016

acara AUSTRALIAN CURRICULUM, ASSESSMENT AND REPORTING AUTHORITY

Overview

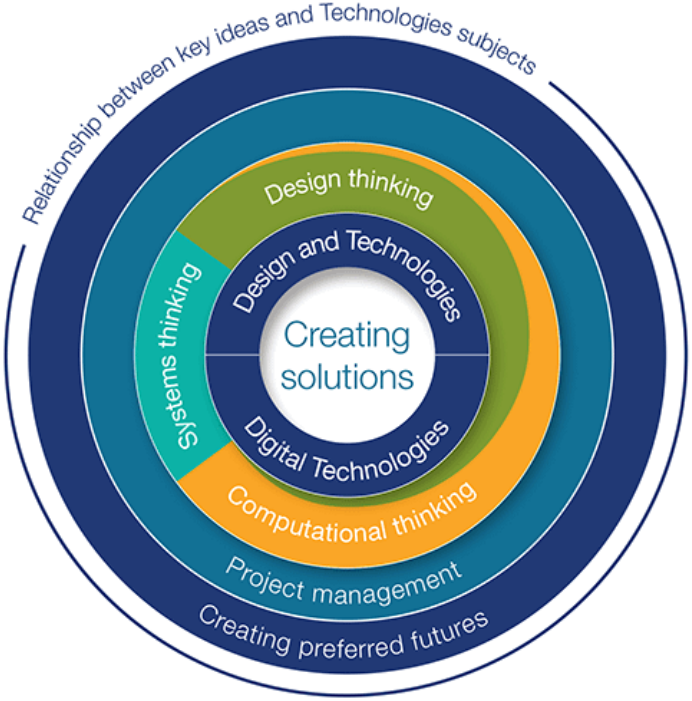
- Endorsement
- Implementation support from:
  - government
  - professional associations
  - industry
  - university

Endorsement

- On 18 September 2015, the Education Council endorsed all outstanding Australian Curriculum.
- In addition, the Education Council endorsed ACARA's improvements to Foundation – Year 10 Australian Curriculum content descriptions and achievement standards.
- Amended Australian Curriculum (version 8.0) published on the Australian Curriculum website 20 October 2015.
- Version 7.5 of the Australian Curriculum will continue to be available until the end of 2016.
- Further detail provided in December 2015 (v8.1) and (v8.2) in March 2016.

Key ideas

- Creating preferred futures
- Project management
- Types of thinking:
  - ➢ design thinking
  - ➢ computational thinking
  - ➢ systems thinking



Education Council

11 December 2015 meeting endorsed:

- National Science, Technology, Engineering and Mathematics (STEM) School Education Strategy 2016-2026.
- Revised national Accreditation of Initial Teacher Education Programs in Australia: Standards and Procedures. *http://www.scseec.edu.au/EC-Communiques-and-Media-Releases.aspx*

National STEM school education strategy 2016-2026

National collaborative actions with a Digital Technologies focus:

- Collect and develop online exemplar teaching modules
- STEM professional learning exchange
- Initial teacher education
- ICT assessments
- STEM partnerships forum
- National reports

Coding across the curriculum

- Coordinated by Federal Department of Education
- Reference group with representation from all states, territories and jurisdictions
- Portal to support implementation of the Australian Curriculum: Digital Technologies
- Site to be developed by ESA by June 2016
- National Innovation and Science Agenda

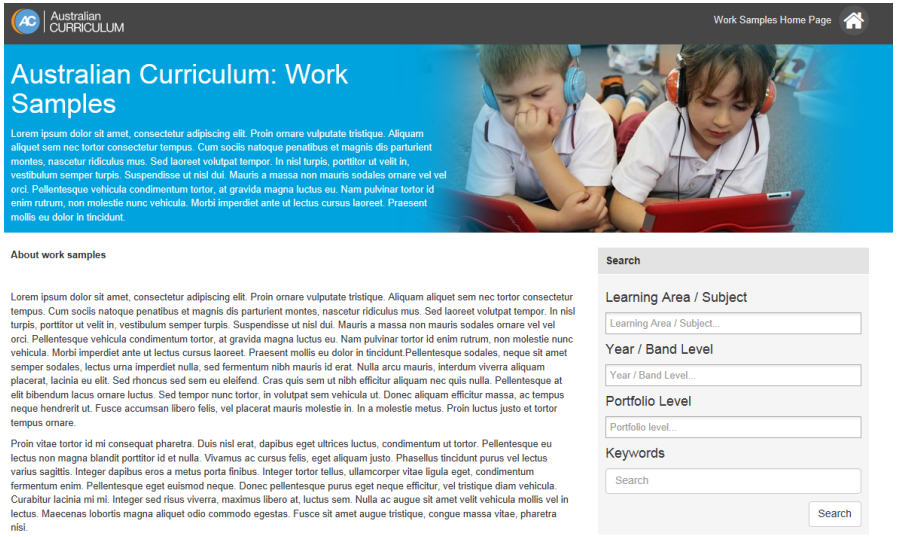
NISA STEM education funding

- $50.6 million for Embracing the Digital Age – a suite of projects aimed at supporting the implementation of the *Australian Curriculum: Digital Technologies* through:
  - expansion of CSER F-6 Digital Technologies MOOC
  - additional support in disadvantaged areas
  - national computing challenges for all Year 5 and 7 students
  - national competition “Cracking the Code” for Year 4–12 students
  - computer science summer schools for Year 9 and 10 students
  - support for flexible partnerships between STEM professionals and schools (CSIRO)
  - grants for school projects

- $14 million for Inspiring STEM Literacy (in the early years) through:
  - Supporting projects which assist early childhood educators to work in partnership with parents and other family members to promote positive science and maths experiences for young children aged three to five
  - The development of online resources for teachers, parents and students, face-to-face training for educators and a series of apps to offer opportunities for preschool age children to engage with STEM concepts.

ACARA

- Digital Technologies contacts group
  - Network of expertise
- Presentations/workshops
- Work samples portfolios



Digital Careers

- Commonwealth Department of Communications 4-year funded program
- Coordinated by NICTA
- Three pillars:
  - activities and events for students to **inform**, **involve** and **engage**
  - teacher professional development eg CSIRO, extending the MOOC, robotics outreach program
  - Promotion of the ICT industry
- Education Advisory groups
- Activity map 2016
- www.digitalcareers.edu.au

Scan for the most recent version of the activity map

Professional associations

- Australian Computers in Education Conference Brisbane 2016
- State and territory workshops/conferences
- ACCE Digital resources http://acce.edu.au/digital-technologies-resources

Industry

- Google – CS4HS; CSER MOOC
- Intel – Coding and inventing with Galileo workshops
- CISCO – 20 hours per year by 2020

Universities

- Outreach
  - University of Adelaide CSER F-6 Digital Technologies MOOC
  - University of Sydney National Computer Science Challenge
  - UNSW RoboCup Junior; Robogals
- Initial teacher education
  - Australian Catholic University