Australian Curriculum: Digital Technologies

6 April 2018

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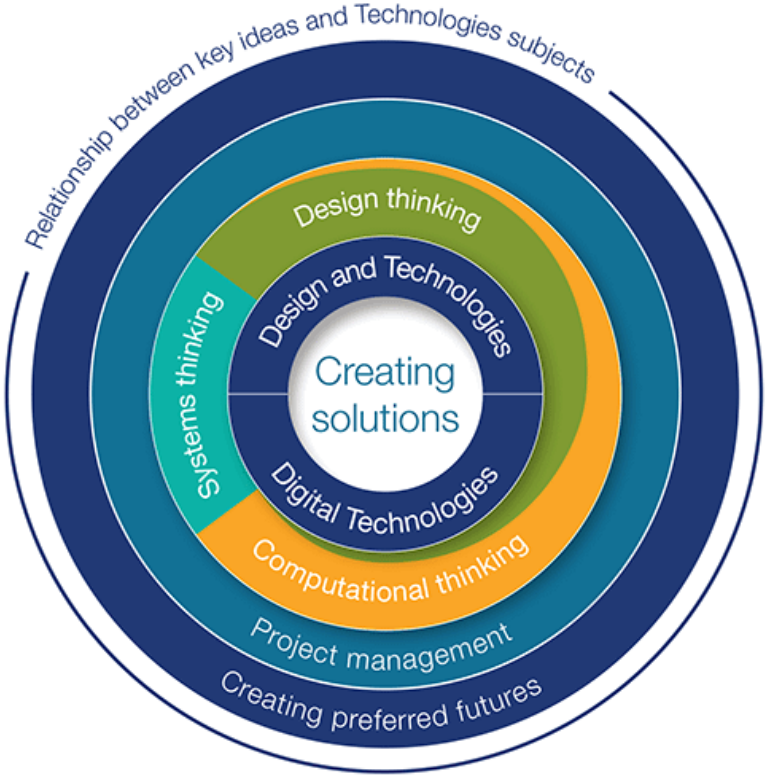


DIGITAL TECHNOLOGIES IMPLEMENTATION

Digital Technologies nationally

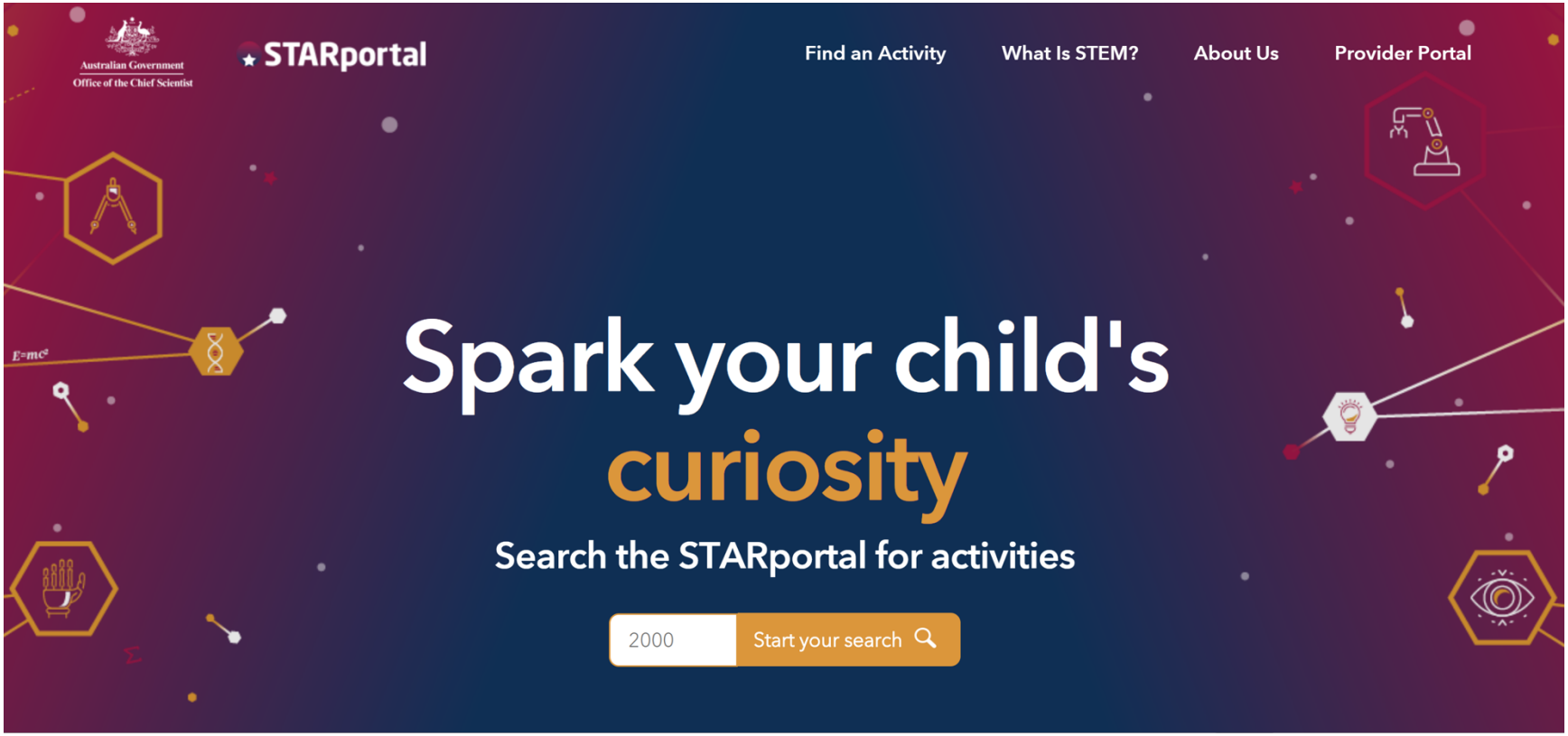
- ACT: Implemented in 2017; reporting in 2018
- NSW: Familiarisation in 2018; implementation in 2019 for Science and Technology (F-6), Technology Mandatory Years 7-8 (Stage 4)
- Northern Territory: Implemented
- Queensland: Strong focus on Digital Technologies. Implemented by 2020 by DET and Catholic system. Independent at own pace.
- South Australia: Implemented
- Tasmania: Implemented 2016 in Catholic schools; DoE (secondary schools in 2017 and primary by 2019)
- Victoria: Victorian Curriculum: Digital Technologies implemented 2017
- Western Australia: WA syllabus implemented in 2018. The Technologies curriculum is written on the basis that all students will study both Technologies subjects from Pre-primary to the end of Year 8.

Senior secondary revisions underway in most states/territories

NISA projects

Digital Technologies in focus

STARportal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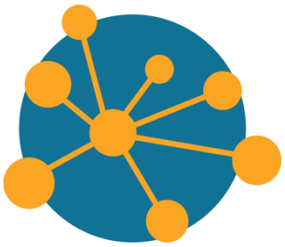
Digital Technologies in focus

PROJECT UPDATE

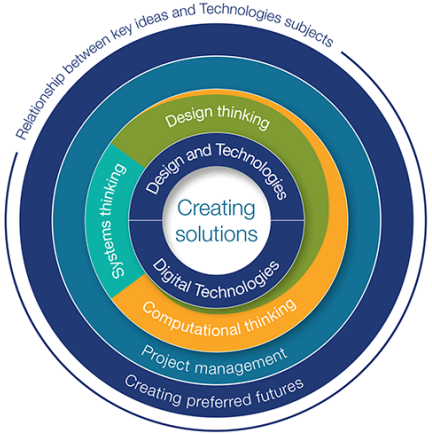
NISA update

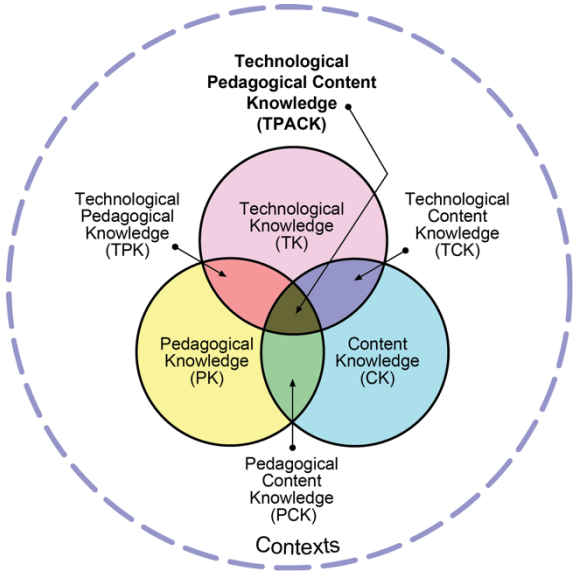


- 25 Introductory workshops completed in 2017
- 150+ schools confirmed
- CSIRO STEM Professionals, CSER, Google partnering to streamline industry support
- School visits in all states and territories. Next week Top End Remote schools and small schools NSW
- ACT schools joining project in May
- Pre-project student survey available
- External evaluation in six schools (Deakin University)

Project framework

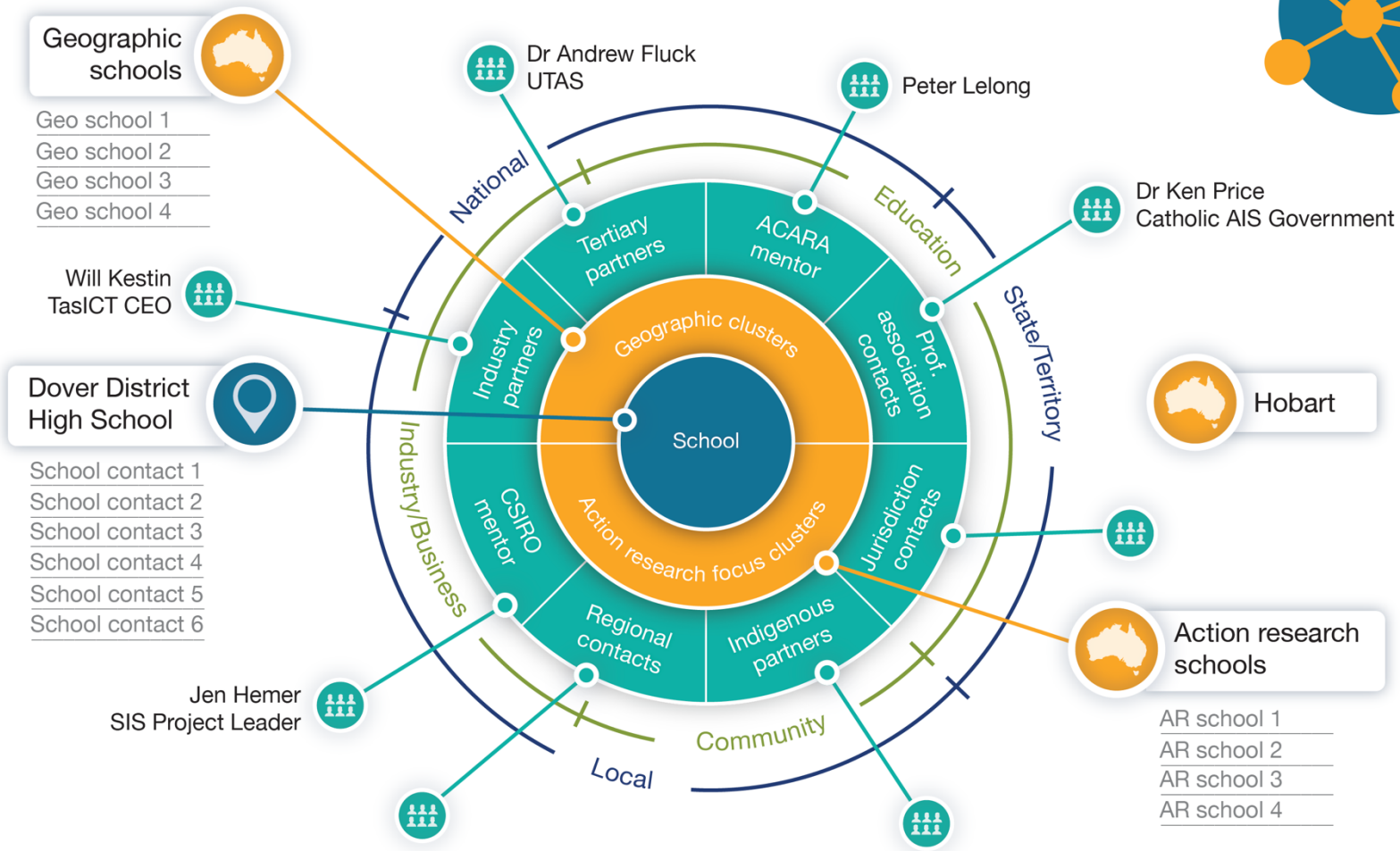
- Uses the key ideas of the Australian Curriculum: Technologies as a driver for developing technological pedagogical content knowledge (TPACK) and Digital Technologies PCK and as a framework for change.





http://www.matt-koehler.com/tpack/tpack-explained/

Our professional learning ecosystem



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Communications

- DTiF Wiki
- DTiF Community
- DTiF Newsletter
  - Dec 17 featuring an article on King Island project and visits to Cherbourg and Murgon.
  - Apr 18 featuring an article on WA road trip and the difference between ICT Capability and Digital Technologies curriculum

Welcome to the first edition of the Digital Technologies in focus (DTiF) newsletter.

No Images? Click here

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DIGITAL TECHNOLOGIES IN FOCUS

DTiF

Welcome to the first edition of the Digital Technologies in focus (DTiF) newsletter. This newsletter will be published each school term, bringing you the latest information about ACARA's NISA-funded DTiF project.

I hope you find this newsletter useful. Feel free to provide your feedback or topic suggestions through your local Curriculum officer, or via email at technologies@acara.edu.au.

Best wishes,

Julie King, Project Lead

Planning for …

- Three professional learning workshops:
  - Understanding the Digital Technologies curriculum
  - Planning implementation of Digital Technologies
  - Key ideas and skills for Digital Technologies
  - Computational thinking
- Project focus cluster webinars
- Progress report #2 webinars
- School visits

INITIAL TEACHER EDUCATION FORUM

Griffith University Summit

School of Education and Professional Studies, Griffith University, with the support of the Queensland Deans of Education and the Queensland College of Teachers (QCT), hosted the Queensland Digital Technologies Summit on 15th June 2016.

The Summit aimed to:

- identify and prioritise digital technologies challenges and issues in Initial Teacher Education
- co-construct a shared digital technologies philosophy in Initial Teacher Education
- co-construct a shared digital technologies framework for Initial Teacher Education
- identify shared actions and strategies for digital technologies learning and teaching in Initial Teacher Education

- What do you consider is the highest priority digital technologies issue/challenge in Initial Teacher Education?

Table 2 Highest priorities in digital technologies learning and teaching issues and challenges

Rank	Priority Digital Technologies Issues and Challenges	%
1	Flexible, open, creative mindset for school students and initial teacher education (ITE) students (agile / resilient / coping with change)	35.48
2	Resources /access / infrastructure for the classroom / technology	22.58
3	Alignment between ITE in universities and school practices	18.06
4	Practical examples and preparing ITE students for the realities of teaching	12.90
5	ITE students and school students need to be creators as well as users	5.81
6	Digital technologies finding expression in the curriculum / pedagogy / assessment	5.16

ACARA Forum – 31 August 2017

Comments from:

- National professional associations
  - Australian Council for Computers in Education
  - Design and Technology Teachers Association
  - Home Economics Institute of Australia
  - National Association of Agricultural Educators
- Australian Institute of Teaching and School Leadership
- Australian Government Department of Education
- Councils of Deans
  - Australian Council of Deans of Education
  - Australian Council of Deans of Agriculture
  - Australian Council of Deans of Built Environment and Design
  - Australian Council of Deans of Engineering
  - Australian Council of Deans of ICT
- Australian Curriculum, Assessment and Reporting Authority

Exploring issues

- Why is there concern regarding initial teacher education for Technologies?
- What are the issues?
- What are the three highest priority issues?
- Select one and explore it in more depth
- Report back on three top issues
- Reflection

- Initial Teacher Education Forum summary shared with participants and Technologies implementation discussion groups.
- Actions revised and shared again with Forum participants
- Paper submitted to ACARA Board for noting and advice re next steps.

Recommendations

- Create a community of change.
- Universities collaborate on developing programs that demonstrate best practice.
- Clarify the learning area to ALL involved, both pre-service teachers and existing teachers.

Initial Teacher Education Actions

	Action	Who?	How?	When?	Progress
Short term	Share recommendations and actions with Teacher professional development workstream of COAG STEM Partnership Forum.	Julie King	Email to Sally-Ann Williams (Lead, Teacher Professional Development workstream)	December 2017	Email sent
	Develop open and sharing community. Create a network between universities and within universities and state/territory and jurisdiction contacts to collaborate on developing teaching, learning and assessment programs that demonstrate best practice (scope and sequence, units of work, scaffolded activities and assessment tasks) Include designers and experts from other disciplines.	Consortium of interested universities and Technologies contacts from each state/territory and jurisdiction Council of Deans of Engineering offered to provide communication and coordination support Requires a Lead	Resources shared with Education Services Australia (ESA) for publication on Digital Technologies Hub or Scootle.	2018	
	Public relations, awareness raising campaign on what the thinking is behind the Technologies curriculum Clear on what the curriculum creates Marketing for teachers of the learning area to highly value what they teach	National professional teacher associations	Media personality eg Jane Caro Funding from industry required	2018	

	Action	Who?	How?	When?	Progress
	National Design and Technology week (16-22 October 2017) 100 schools nationally reaching over 80 000 students – achieved with no funding or sponsorship. With funding and/or sponsorship for a national advertising campaign the reach could be expanded.	Design and Technology Teachers Association (DATTA)	State and territory professional teacher associations	2018	Planning underway
	A similar week could focus on Digital Technologies – possibly coinciding with one of the NISA Coding challenges or the ACCE 2018 conference	Tentatively Australian Council for Computers in Education (ACCE)	State and territory professional teacher associations	2018	
	Consider how to enhance the experiences for pre-service teachers when the accreditation cycle for universities could be five years away. Seek Federal funding for a collaborative development initiative (like the Teaching Teachers for the Future project) to successfully engage all stakeholders and achieve robust systemic advancement of Technologies within initial teacher education.	Consortium of interested universities Requires a Lead	Expressions of interest from universities	February 2018	

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	Developing a solid understanding of computational, systems and design thinking pedagogies.	NISA Digital Technologies in focus Curriculum Officers	In collaboration with interested academics	2018-19	Review of continua completed - ongoing
	Upskill existing teachers through a series of short training courses	Design and Technology Teachers Association (DATTA)	Provided by RTOs in each state and territory.	Develop 2018; implement 2019-20	
	Review initial teacher education programs Eg Swinburne University creating new Design and Technologies teacher education course as part of their Masters program.	Universities DATTA ACCE NAAE HEIA	In collaboration with interested academics	3 years	
	Incentivising, supporting, encouraging more Technologies and Design studies programs – seek support from Deans of related faculties	Universities	Requires a Lead	2020	

Contacts

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