

**SMART**  
Classrooms

Girls and ICT Strategy  
2005–2008



**Queensland  
Government**

Department of  
Education and the Arts

## Girls and ICT Strategy 2005–2008

### Vision statement

The Department of Education and the Arts is committed to improving opportunities and pathways for all students. By making information and communication technology (ICT) integral to teaching and learning, Queensland students will have continuous opportunities to create with and use ICT. Approximately half of all students in Queensland schools are girls. This strategy aims to capture girls' interests and help them to realise their potential for success in ICT careers and studies.

### Objectives

#### **Objective 1: Changing attitudes**

To change attitudes about ICT careers and study opportunities at all levels: schoolgirls, parents of school students, teachers and teacher aides, and careers guidance officers. ICT is fun, people-oriented and can take you anywhere.

#### **Objective 2: Changing practice**

To change the practices of parents, teachers and teacher aides and careers guidance officers to make the teaching and use of ICT at school at home more inclusive.

#### **Objective 3: Increasing engagement**

To increase the engagement of girls with ICT by providing access, appropriate experiences and opportunities for advancement for girls with ICT.

### Target audiences

- All students
- Teachers and teacher aides
- School administrators
- Department of Education and the Arts staff
- Regional technology managers
- Careers guidance officers
- Parents of school students
- Queensland universities
- Vocational education and training providers (including TAFE Queensland)
- Queensland ICT companies
- Queensland ICT industry associations
- Queensland education and professional associations

## Guiding principles

- Enhance current programs and create new initiatives.
- Target schoolgirls in all phases of learning using appropriate strategies.
- Develop biennial frameworks for action with specific goals.
- Foster the building of local capacity at the school and regional levels.
- Lead the creation of new models and modes of practice.
- Recognise the existence of multiple pathways, multiliteracies and the wide range of careers available in traditional and emerging ICT industries.
- Partner with government agencies, industry and professional groups, TAFE colleges, universities and the community, where synergies exist.
- Design and implement strategies that actively engage all stakeholders.
- Consider whole-of-government directions, such as Smart Women Smart State initiatives.

## Performance targets 2006–2008

- By 2008, 35 percent of state secondary school students enrolled in ICT specialty subjects will be girls.
- By 2008, 70 percent of state secondary schools will have participated in girls and ICT initiatives.
- By 2008, 30 percent of state primary schools will have participated in girls and ICT initiatives.

## Rationale

- ICT is a critical tool for living and learning in the 21st Century.
- Participation by Australian girls and women in computer science courses at the tertiary education level typically ranges from 10 to 30 percent.
- The Australian Computer Society asserts that: “Information Technology is one of the fastest growing industries in Australia today, yet only about 20 percent of the people who work in the ICT industries are women”.<sup>1</sup>
- The key factor driving the development of the Girls and ICT Strategy is evidence that the already low level of enrolments of girls and young women in ICT subjects in schools and universities has not improved significantly in the past decade.
- Girls and young women are under-represented in ICT courses and computer clubs and in ICT-based careers.

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<sup>1</sup> <https://www.acs.org.au/ictcareers/people/women.htm>

## Actions

<b>Action</b>	<b>Objective 1: Changing attitudes</b>	<b>Objective 2: Changing practice</b>	<b>Objective 3: Increasing engagement</b>
GIDGITS girls and ICT role models events	✓		
Professional development for teachers	✓	✓	
Go Go GIDGITS: an online computer club for girls	✓		✓
ICT career profiles	✓		
Mentoring and industry experiences programs	✓		✓
Tips, tricks and project ideas for engaging girls with ICT	✓	✓	
Regional girls and ICT coordinators	✓	✓	
Girls and ICT web community	✓	✓	
Girls' computer clubs	✓		✓
Vacation school for ICT specialty teachers trial	✓	✓	✓
Publications and articles	✓	✓	
Girls and ICT Reference Group	✓		
Action learning projects		✓	✓
Professional development kits for regional girls and ICT coordinators		✓	
Research project		✓	
BYTE Awards			✓
GIDGITS steering committee			✓

<b>Action</b>	<b>Objective 1: Changing attitudes</b>	<b>Objective 2: Changing practice</b>	<b>Objective 3: Increasing engagement</b>
Motivational video	✓		

### **GIDGITS girls and ICT role models events**

Local action committees will be formed to coordinate girls and ICT role models events in each region. Strong, positive role models can influence schoolgirls' career and study choices. The role model events will be aimed at schoolgirls in the middle and senior phases of learning, their parents, teachers, teacher aides, ICT specialty teachers and careers guidance officers. Local action committees may be comprised of parents, teachers, teacher aides, ICT specialty teachers, careers guidance officers, staff from Queensland universities, vocational education and training providers, local ICT companies and members of education associations.

### **Professional development for teachers**

Teachers influence students' perceptions of ICT careers and studies and their confidence with ICT. Professional development sessions for teachers will encourage teachers to examine their own perceptions of ICT careers and studies and will provide them with principles and practical advice to make the use of ICT in teaching and learning more inclusive. Regional girls and ICT coordinators will facilitate professional development sessions aimed at ICT specialty teachers, teachers and teacher aides across all phases of learning. These sessions will be conducted on a needs basis and may be held at local teacher conferences.

### **Go Go GIDGITS: an online computer club for girls**

Go Go GIDGITS ([www.learningplace.com.au/ea/gicts/ggg](http://www.learningplace.com.au/ea/gicts/ggg)) is an online computer club created by girls for girls. Through Go Go GIDGITS, schoolgirls that take on a leadership role can change girls' perceptions of ICT careers and studies. Schoolgirls who join Go Go GIDGITS have opportunities to experience ICT projects developed by other schoolgirls. Schoolgirls in the middle and senior phases of learning throughout Queensland can become members or leaders of Go Go GIDGITS.

### **ICT career profiles**

Profiles of people who work in ICT careers can help dispel the 'geek' mythology surrounding ICT careers and studies. Teachers, teacher aides, career guidance officers and students will be able to access ICT career profiles via the GIDGITS website ([www.gidgits.org](http://www.gidgits.org)) and the Girls and ICT web community ([www.learningplace.com.au/ea/gicts](http://www.learningplace.com.au/ea/gicts)).

### **Mentoring and industry experiences programs**

Mentoring and ICT industry experience programs help students and teachers fully understand what working in the ICT industry is all about. These experiences expose girls and accompanying teachers to new ways of working with ICT. Schoolgirls in the middle and senior phases of learning will have the opportunity to be involved in ICT industry experience and mentoring programs. These programs may be organised by professional associations, universities, vocational education and training providers, or ICT companies.

### **Tips, tricks and project ideas for engaging girls with ICT**

A collection of tips, tricks and project ideas for engaging girls with ICT will be collected from teachers in the early, middle and senior phases for learning. These will be published on the Girls and ICT web community ([www.learningplace.com.au/ea/gicts](http://www.learningplace.com.au/ea/gicts)) and Education Queensland's Curriculum Exchange ([www.education.qld.gov.au/tal/curriculum\\_exchange](http://www.education.qld.gov.au/tal/curriculum_exchange)). These tips, tricks and project ideas will be springboards for teachers and teacher aides wishing to further engage girls with ICT.

### **Regional girls and ICT coordinators**

A girls and ICT coordinator will be appointed in each region to coordinate girls and ICT action. This action will change attitudes about ICT careers and studies and facilitate the increased use of inclusive practices in teaching and learning with ICT.

### **Girls and ICT web community**

The Girls and ICT web community ([www.learningplace.com.au/ea/gicts](http://www.learningplace.com.au/ea/gicts)) aims to be a one-stop shop for information about girls and ICT initiatives, girls and ICT research, competitions and scholarships for girls and ICT, and more. Information on the website can be used by career guidance officers, teachers and teacher aides to develop more informed perceptions of ICT careers and studies and to access ideas for new, inclusive ways of using ICT in teaching and learning.

### **Girls' computer clubs**

Girls' computer clubs in schools can affect girls' interest in and confidence with ICT. Girls' computer clubs give girls access to opportunities for advancement with ICT in supportive environments. Schools are encouraged to form their own girls' computer clubs and link with existing initiatives such as Go Go GIDGITS. Resources for girls' computer clubs are also available on the Girls and ICT web community ([www.learningplace.com.au/ea/gicts](http://www.learningplace.com.au/ea/gicts)).

### **Vacation school for ICT specialty teachers trial**

Vacation schools for ICT specialty teachers have proven successful in other countries to increase girls' participation, advancement and retention in ICT specialty subjects. A trial program will be developed that focuses on gender equity in the ICT classroom and a particular ICT content area.

### **Publications and articles**

Articles featuring girls and ICT initiatives will be published in education journals, *Education Views* and other publications. These articles will further inform teachers, teacher aides, parents and career guidance officers of strategies they can employ to change attitudes and perceptions towards ICT careers and studies. The articles will also profile new ways that ICT can be used at school and home to appeal to girls and increase girls' engagement.

### **Girls and ICT Reference Group**

The Department of Education and the Arts will continue to be an active member of the Queensland Girls and ICT Reference Group. This group is comprised of representatives from universities, schools, government departments, ICT industry associations, teacher associations and vocational training providers. The Queensland Girls and ICT Reference Group provides cross-sector collaboration opportunities and increases awareness of girls and ICT initiatives taking place across Queensland.

### **Action learning projects**

Grants will be available to schools to assist them in making teaching with ICT more inclusive and engaging for girls. Successful practices will be documented and shared with other teachers through the Girls and ICT web community ([www.learningplace.com.au/ea/gicts](http://www.learningplace.com.au/ea/gicts)) and the Curriculum Exchange ([www.education.qld.gov.au/tal/curriculum\\_exchange](http://www.education.qld.gov.au/tal/curriculum_exchange)). The grants are available through Smart Classrooms ICT for Every Student initiative.

### **Professional development kits for regional girls and ICT coordinators**

Professional development kits will be developed for regional girls and ICT coordinators. These can be used by regional coordinators to deliver professional development to teachers, teacher aides, ICT specialty teachers and career guidance officers. Professional development will help teachers make the teaching and use of ICT more inclusive.

### **Research project**

James Cook University has been commissioned to implement the research project, *Developing informed and integrated strategies to address low female participation rates in professional Information Communication Technologies careers and pathways*. The results of this project will be used to inform future ICT teaching practices.

### **BYTE Awards**

The Building Youth Technology Excellence (BYTE) Awards recognise and reward students in the middle and senior phases of learning for their innovative and creative use of new technologies and encourage students to excel in using ICT. A girls and ICT category within the BYTE Awards will be maintained. The BYTE Awards also provide students in the senior phase of learning with the opportunity to participate in a five-day program of industry visits and workshops to organisations with sophisticated, leading-edge infrastructure.

### **GIDGITS steering committee**

A GIDGITS steering committee will be formed with representation from each region. GIDGITS provides girls with exciting ICT opportunities that aim to increase girls' engagement and advancement with ICT.

### **Motivational video**

A motivational video presentation aimed at changing girls' attitudes and perceptions towards ICT careers and studies will be made available to schools and local action committees.