

OECD: school education benefits from moderate computer use

by: *Natasha Bitá*: [The Australian](#) September 24, 2015 [Increase Text Size](#)

Students who spend six hours a day online are twice as likely to feel lonely at school, according to the first international comparison of students' digital skills. The OECD warns in a report that excessive internet use harms children's health and has questioned the level of schools' reliance on technology.

"In the end, technology can amplify great teaching, but great technology cannot replace poor teaching," the report says. It says students using smartphones to cut and paste answers "is unlikely to help them to become smarter".

"If we want students to become smarter than a smartphone, we need to think harder about the pedagogies we are using to teach them."

Students need a solid foundation in reading, writing and maths before schools introduce computers, it says. Otherwise, students who cannot read well or understand mathematical concepts will be "digitally adrift".

"The fact that computers and ... robots can perform many tasks at a lower cost than human workers means that the skills that complement new technologies are in increasing demand," the report says.

The OECD found that students who use computers moderately at school achieve better results than those who use computers rarely. But heavy users of computers in the classroom "do a lot worse in most learning outcomes".

Teenagers who spend the most time chatting online, or practising and drilling on computers, perform worse at school. "Students who frequently engage in these activities may be missing out on other more effective learning activities. Students who never or only very rarely engage in these activities have the highest performance," the report says.

Schools and families have invested extensively in computers and software, it notes. "Ensuring that every child attains a baseline level of proficiency in reading and mathematics will do more to create equal opportunities in a digital world than can be achieved by expanding or subsidising access to hi-tech devices and services."

The report is based on the OECD's Program for International Student Assessment, which tested the reading, maths and science skills of 510,000 15-year-old students in 65 countries including Australia.

Technology, the OECD report says, "is the only way to dramatically expand access to knowledge". "Why should students be limited to a textbook that was printed two years ago, and maybe designed 10 years ago, when they could have access to the world's best and most up-to-date textbook?" it says. "Technology allows teachers and students to access specialised materials well beyond textbooks, in multiple formats, with little time and space constraints."

Australian students are the likeliest to use a computer at school: 94 per cent of them have one in the classroom, compared with the OECD average of 72 per cent. In Shanghai, only 10 per cent of students use the internet at school at least weekly, compared with 81 per cent in Australia and 42 per cent across the OECD.

Nearly half of Australian children start using a computer by the age of six. Worryingly, the data shows that one in 10 Australian teenagers spends more than six hours on the internet, before or after school, on a typical weekday. These “extreme internet users” are twice as likely as other students to report feeling lonely at school, and nearly half of them arrive late for class.

The report finds that “wellbeing at school is strongly related to the electronic media diet outside of school”. “Fifteen-year-olds who spend more than six hours online every day are particularly at risk of suffering from lower emotional wellbeing and of behaving in problematic ways at school, such as arriving late for class or skipping days of school,” it says.

A quarter of Australia’s 15-year-olds spend more than four hours a day online, before or after school. A typical teenager spends more than two hours online outside school on weekdays, an hour a day at school and nearly three hours a day on weekends.

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