



# Teen brains rewired

## Generation distracted by multiple devices

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SOCIAL media and smart-phones could be breeding a generation of “very distractible people” because an overload of technology is rewiring children’s brains.

Countless hours spent juggling multiple digital devices is limiting people’s ability to concentrate, scientists will tell a Melbourne conference this weekend.

And children and teenagers — whose brains are more “plastic” — are most at risk of long-term problems. Two Australian conferences are addressing how children’s brains are being affected by technology.

Experts will tell the Australian Council on Children and Media conference in Sydney today that increasing numbers of children are dropping out of school because of addictions to the internet and video games.

And Professor Alex Fornito,

from Monash Clinical and Imaging Neuroscience at Monash University, will tell the University of Melbourne’s Festival of Ideas too much exposure to digital technology can “change brain circuitry”.

“Our brains will always adapt to whatever changes in our environment are occurring at the time,” he said.

“We’re now in this world where all this information is coming at us ... we’re engaged in all different kinds of things at once, but we’re not focusing on any one thing at any given time.

“I think the concern is it’s going to turn people into very distractible people, so unless I’m engaged in five things at once, I can’t feel comfortable. So they’re going to have a short attention span and probably short memory.”

Prof Fornito said the repetition of any activity — not

just internet use — strengthened the brain’s “pathways”, particularly in children and teenagers. He stressed that the internet also had the “potential for good”, and could be a valuable education tool in moderation: “It’s how we use it”.

Dr Philip Tam, a practising child and adolescent psychiatrist, is among those dealing with the worst cases of “overuse” by teenagers — leading to addiction. He said he had one patient who played video games for “about 60 hours almost non-stop”. “At the more severe end are teenagers who have dropped out of school completely,” Dr Tam will tell the ACCM conference.

Dr Wayne Warburton, from the Children and Families Research Centre at Macquarie University, said too much exposure to violent video games altered the adolescent brain.