



SCREEN VS NATURE

CAN THEY CO-EXIST?

Screen time has been blamed for an ever-growing list of childhood problems, not least the lack of time spent in outdoor play in nature. It's certainly an issue that the early education sector is aware of. But could screen technology be a catalyst for inspiring children to engage with nature? Justine McClymont finds out.

According to the Australian Department of Health, long periods of screen time is connected to less active outdoor and creative play; slower development of language skills; poor social skills, and an increased risk of being overweight. The Department of Health guidelines recommend that children between the ages of 2–5 years old have a limit of one hour per day of screen time.

The concept of “nature-deficit disorder” has also been coined by American author Richard Louv in his book *Last Child in the Woods*. While this term is not a recognised medical condition, Louv links the lack of nature in the lives of today's 'wired' generation

to childhood trends such as the rise in obesity, attention disorders and depression. In his book, Louv argues for the need for direct access to nature for healthy childhood development and emphasises the crucial role that nature plays in the physical and emotional health of both children and adults.

It would seem, then, that screen time is diametrically opposed to spending time in nature.

WHAT IF SCREENS COULD BE PART OF THE SOLUTION?

But could screens, in fact, be part of the solution to encourage children to participate in active and creative

nature play? Could screens be a catalyst for inspiring children to learn about our amazing natural world? Rather than screens being seen as part of the problem, could the technology provide the chance for children to develop their own sense of connection to nature and the environment?

Dr Jo Bird is a lecturer in early childhood education at the University of New England with a particular interest in children's use of digital technologies and play-based learning. Her short answer is 'yes'. Screen technology can absolutely help children to connect with nature, but only if used effectively.

"We all know that children are interested in technology," says Jo. "If we actually embrace their interests and teach them how to use the technologies in a positive way, it will help to build up skills that they will use in their future learning."

One of the most important considerations is to ensure that children engage in active screen time rather than passive consumption. "I would prefer a child to have an hour of screen time where they've created a nature book of all the bugs that they found in their backyard than an hour of sitting there watching a YouTube video," she says. "Even though it's the same amount of time, the learning and the skills that the children are developing and their interactions with the device are totally different."

PRESENTING TECHNOLOGY AS A SUPPORT TO NATURE PLAY

Jo was invited to present at the 2019 Nature Play Conference at Thalgarra Environmental Education Centre near Armidale NSW, where she showed educators how to use screen technology to interact with and learn about nature.

"Knowing that technologies are often viewed as being in opposition to nature play, my idea was to present technologies in a way that actually supports nature play and that might encourage educators to use screens outside in ways that respect nature," Jo says.

Participants were asked to go and find items on a nature treasure hunt and capture them through photos, videos and audio recordings. They then created a digital book of their discoveries using an app called Book Creator. This creative app allows users to add photos, videos, audio recordings, notes and drawings. The books can be viewed digitally and also exported to PDF for printing.

"Children love treasure hunts," says Jo. "Book Creator is a great way to create a book on anything by using images and videos. It's quite quick and easy to use."

According to Jo, this type of app, which provides opportunities for active and creative learning (not to mention getting children outdoors in nature), is much more beneficial than "skill-and-drill" apps which can be repetitive and limiting. In addition to apps like Book Creator, there are also apps available like FrogID and Aussie Bird Count that encourage children to become active 'citizen scientists' through observing and counting species, and then logging the results to help inform the work of Australian scientists.

"The response from educators at the session was very positive," says Jo. "A lot of the educators said at the start that they were reluctant to use technologies with children at any time because of the idea that children get too much screen time normally. I explained to them that, when I was teaching, we used to use bug catchers and we would go up into the yard,



collect bugs, bring them back into the room, put some leaves in an old fish tank and watch the bugs crawl around. Eventually the bugs would die, the children might get upset and then we'd get rid of the bugs."

"I explained that this approach definitely wasn't sustainable and it wasn't supporting nature. Now I encourage children to use an iPad, to video the bugs in their natural habitat, and then they can watch the video over and over again. It's not interrupting the bugs and what they're doing, and it also means that the children are learning how to use iPads, but they're using them in a positive way."

OPENING UP A WORLD OF OPPORTUNITY

Karen Bramley is an Educational Leader at Armidale Community Preschool in regional NSW who attended one of Jo's workshops. She said the preschool had previously decided to stop using screens with their 3-5 year olds for a range of reasons including some children not being able to differentiate between screens and other objects (such as trying to 'swipe' real puzzle pieces back into place) and possessiveness of iPADS when there weren't enough to go around.

"Children weren't settling very well, so we canned the technology and continued with the nature play day programs," she said.

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Dr Jo Bird, lecturer in early childhood education at the University of New England



After attending Jo's workshop, Karen realised that the children were missing out on a world of opportunity when it came to creative ways to engage with nature. The preschool now regularly uses the Book Creator app on iPad minis.

"The cicadas have started coming out, so we've just made a nature book about cicadas," said Karen. "When children find a cicada shell or a cicada, it just opens up the whole learning experience, from language to touching to learning about how to care for them. It all goes onto the Book Creator. All the children's voices are in there. It's all immediate learning."

Armidale Community Preschool also uses the Guided Access setting on iPhones and iPads, which limits the device to a single app and can be used to set time limits and control which features are available.

Karen says re-introducing technology using these apps has been beneficial for the children, and the educators are seeing positive outcomes.

"Children are much more aware of why we need the bugs and the bees and everything in our environment. So instead of catching the bug and putting it in a bug catcher, a lot of the children are now happy to watch it on the tree and watch where it goes and what it's doing. They're a lot more engaged with the natural environment and they respect insects and nature."

Karen adds that it has changed the way the children process information and think about nature and the environment. "Being that 'up close', I think it's made them really process their whole way of thinking. Being in the natural environment, seeing what's in the environment and how to care for it and learn, we've seen a big back-flip and the kids are just benefiting so much from it."

When it comes to screens vs nature, it's no longer a case of 'never the twain shall meet'. The curious desire of children to learn how to use the technology they see their parents using every day isn't necessarily something to be afraid of or reluctantly 'managed'. Rather, it presents an opportunity for educators to harness that inquisitive energy and mindfully guide it, providing opportunities for young minds to develop their own sense of curiosity and wonder about the natural world. ■

FURTHER INFORMATION

Early Childhood Australia Statement on young children and digital technologies, 2018

www.earlychildhoodaustralia.org.au/our-work/submissions-statements/eca-statement-young-children-digital-technologies



APPS TO TRY

Book Creator
bookcreator.com

Guided Access setting
support.apple.com/en-us/HT202612

FrogID
[Australian Museum]
www.frogid.net.au

Aussie Bird Count
[BirdLife Australia]
aussiebirdcount.org.au

Pizzey & Knight Birds of Aus
apps.apple.com/au/app/pizzey-and-knight-birds-of-aus/id714625973

Xmas Beetles ID app
[Australian Museum]
apps.apple.com/au/app/xmas-beetle-id-guide/id1180442876

