# Digital technology in the early years: The importance of everyday learning opportunities to build young children’s digital technology skills

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| As a co-author of the Early Childhood Australia (ECA) Statement on young children and digital technologies, can you explain the rationale for creating this statement? How can it support educator practice with regards to building children’s digital technology skills? |

The [ECA Statement on young children and digital technologies](https://www.earlychildhoodaustralia.org.au/our-work/submissions-statements/eca-statement-young-children-digital-technologies/) was created to support adults to make decisions about technology use ‘with, by and for’ young children. Increased recognition in the sector that young children use a range of technologies at home and in their communities, for playing, communicating and accessing online content, suggested that digital learning in early childhood settings was timely. The statement highlights four main areas of children’s learning and development: relationships, health and wellbeing, citizenship, and play and pedagogy. It also invites educators to think about how they understand technologies and the role of technologies in the lives of children and families.

This includes thinking about what is known as ‘philosophy of technology’ (Gibbons 2010). Philosophy of technology is a body of knowledge that proposes different ways of thinking about the relationship between people and technologies. Just as there are theories of play and learning that educators can refer to, there are philosophies of technology educators can draw on to think about using technologies with children. Three of the main philosophies of technology are technological determinism, substantivism and critical constructivism. Technological determinism is the most commonly held view. This view suggests that technologies cause or determine what happens to people. Some people hold a negative view of determinism: for example, thinking that technologies reduce the quality of children’s imaginative play. Other people hold a positive view of determinism, believing that technologies support children to communicate with others. Substantivism considers how technologies shape practices, or what people do in their daily lives over time. Critical constructivism posits that technologies are always designed and used by people according to human values. This view suggests that people can make active choices about how and why they use technologies that are relevant to their lives, such as people using videoconferencing during the pandemic to connect with family and friends.

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| The Victorian Early Years Learning and Development Framework (VEYLDF) refers to five Learning and Development Outcomes for children. Outcomes 4 and 5 explicitly mention the inclusion of digital technologies in children’s learning. What are some effective learning experiences that explore everyday opportunities to build children’s understanding and use of digital technologies? |

Technologies are part of children’s lives; however, not all educators are comfortable with using technologies in children’s learning. Rather than focusing only on the technology in digital learning, think instead about the ways in which technology creates opportunities for meaning-making. For example, making meaning using technologies may involve taking photographs, creating videos or slideshows, co-sharing digital content, or coding with robotics. Meaning-making can also be about understanding how we live with and use technologies in our daily lives. Meaning-making for understanding does not have to involve using working technologies. Children can create their own non-working technologies from available materials (such as boxes, blocks or paper) to participate in sociodramatic play that provides opportunities for talking about how and why technologies are used. For example, children might make their own mobile phones and use these in their play to send messages to each other and take calls. Educators can help children in this play by inviting children to use technologies in ways that are respectful of relationships. Are the children having a pretend meal together? Can educators invite children to put their phones away while they eat? Or if children are taking pretend photographs of each other, educators can be sure to model asking for consent. Educators can also create representations of technologies that help children learn about the internet and how information and data are shared over a network: for example, using string to ‘connect’ non-working devices in a home or office corner to help children learn about the internet as a network of connected technologies. Children can ‘send’ messages, emails or content to each other as paper notes attached to the string. Educators can invite children to consider if they know who is sending them messages or where the content has come from. This provides children with an everyday opportunity to learn about the internet and safe online behaviours.

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| The VEYLDF states ‘Assessment is designed to discover what children know, understand, and can do’. What does this look like in terms of children’s trajectory of learning around digital technology? How might educators connect their observations of children engaging with digital technology to children’s learning and development across other domains? |

Children are likely to follow a developmental trajectory when using technologies due to their experiences using technologies at home and in the community, with their family, friends and peers. Children’s experiences with technologies are variable and so they will come to early childhood education and care settings with a range of technological knowledge and skills. This can depend on the access children have to devices, reliable internet and opportunities for adult engagement during technological activity. Educators can observe how children build their capacity to use devices over time. This is important because some basic operational knowledge with technologies is required of children as they enter formal schooling. For example, do children know how to turn technologies on and off? Can children point, touch, swipe and resize using a tablet? Pre-school aged children may also exhibit technological language, such as download, upload, click and save, and will probably know the difference between still and moving images. This language helps children communicate and share information with other people, including family members and peers. When children use technologies, educators can also support connections with digital media or content that supports children’s identity. For example, which programs or games do children enjoy at home and how are these recognised in the classroom? This can be achieved by providing children with access to pretend technologies and apps, such as a cardboard box representing a touchscreen device, with cut-outs of their favourite applications. Other examples include learning about digital media interests alongside children, examining and sharing storylines, or providing opportunities for children to express digital media interests through more traditional play, such as box construction, drawing or painting. Using internet-connected technologies also provides opportunities for children and educators to access information to resource play and learning, such as through video content, or well-curated resources from reputable early learning providers in topic areas including science, mathematical thinking, history, music and visual or performing arts.

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| The VEYLDF identifies eight Practice Principles that illustrate the most effective ways for all early childhood professionals to support children's learning and development. One of these Practice Principles is ‘Partnerships with Families’. What are some effective strategies to engage families in discussions about digital technologies and young children? |

Families are central to children’s learning and development. When educators engage in discussion about technologies with families, they can help adult caregivers facilitate positive digital learning opportunities for children at home. The VEYLDF states ‘Early childhood professionals … actively engage families and children in planning for ongoing learning and development in the service, at home and in the local community’ (VEYLDF, p. 9). Many organisations in Australia are involved in promoting and supporting young children’s safe and productive engagement with technologies, with tip sheets, videos, infographics and games. Educators can invite families to use these materials with children to explore topics such as staying safe online, being active with technologies, using technologies to support social relationships, and fostering children’s digital play.

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| What would be some final key messages for educators who want to support children’s digital skills and understanding? |

Two key messages are important for educators thinking about supporting children’s digital skills and understandings. The first message is to start involving children in digital opportunities that feel achievable within the service. Not all services have access to technologies and not all educators feel comfortable using technologies with children. Programming can involve using non-working technologies in children’s play, such as using a block in pretend play as a mobile phone, or teachers creating representational technologies for children to use in the home corner (for example, printed life-size copies of tablet devices). Working technologies do not need to be complicated. While coding, robotics, digital microscopes and augmented reality provide highly engaging learning opportunities, children can also learn from educators modelling appropriate technology use on more accessible technologies, such as touchscreen: for example, by asking permission to take photographs or fact-checking information online. It may also be helpful for services to complete a technology audit – such as the [eSafety checklist for early learning services](https://www.esafety.gov.au/educators/early-years-program/checklist) – to see which technologies are available for children and where these might be integrated with ongoing learning opportunities in the service. For example, digital music can be incorporated into rest times, or children can be provided with opportunities to create digital drawings alongside traditional mark making.

The second message is to understand that young children today are part of a digital world. At any one time there are more than 8000 satellites around the earth that are sending and communicating information and data. It is becoming harder and harder to isolate children from technologies because so much of the world is now digital. It may be more helpful to think intentionally about supporting children to live within a digital world. The VEYLDF states ‘Early childhood professionals … use intentional teaching strategies that are always purposeful and may be pre-planned or spontaneous, to support achievement of well-considered and identified goals’ (VEYLDF, p. 15). This shifts the pedagogical focus from trying to keep children away from technologies to thinking about the purposeful use of technologies with children, allowing children to develop the knowledge and skills they require to participate in a digital world.

*This fact sheet was developed by Professor Susan Edwards.*

Professor Edwards is Director of the Early Childhood Futures research program in the Institute for Learning Sciences and Teacher Education at Australian Catholic University. She is lead Chief Investigator on a major Australian Research Council (ARC) Linkage Project awarded to develop an online tool to guide the use of digital technology for service providers in early childhood.

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This fact sheet supports information contained in the Victorian Curriculum and Assessment Authority (VCAA) June 2022 Twilight Webinar – Digital technology in the early years: The importance of everyday learning opportunities to build young children’s digital technology skills.

Edited vignettes of this webinar are published on the [Early Years Professional Learning](https://www.vcaa.vic.edu.au/news-and-events/professional-learning/earlyyears-professional-learning/Pages/Index.aspx) webpage of the VCAA website.

## References

Early Childhood Australia 2018, ‘[Statement on young children and digital technologies](http://www.earlychildhoodaustralia.org.au/our-work/submissions-statements/eca-statement-young-children-digital-technologies)’, *Early Childhood Australia*

eSafety Commissioner, ‘[eSafety checklist for early learning services](http://www.esafety.gov.au/educators/early-years-program/checklist)’, *eSafety*

Gibbons, A 2010, ‘Reflections Concerning Technology: A Case for the Philosophy of Technology’, in *Technology for Early Childhood Education and Socialization: Developmental Applications and Methodologies*, S Izumi-Taylor and S Black (eds.), IGI Global, New York, pp.1–19

## Additional resources that might be useful

Australian Federal Police, Alannah & Madeline Foundation and eSafety Commissioner, [*Playing IT Safe*](https://playingitsafe.org.au/)

Australian Research Council, [*Centre of Excellence for the Digital Child*](http://www.digitalchild.org.au)

eSafety Commissioner, ‘[eSafety Early Years program for educators](http://www.esafety.gov.au/educators/early-years-program)’, *eSafety*

‘[Kiya’s Excellent eBirthday](https://iview.abc.net.au/show/play-school-kiya-s-excellent-ebirthday)’, *Play School*, series 349, episode 1, ABC, 27 April 2020

raisingchildren.net.au, ‘[Using digital technology with children: tips](https://raisingchildren.net.au/toddlers/videos/using-digital-technology-with-children-tips)’, *raisingchildren.net.au*

United Nations 2021, ‘[General comment No. 25 (2021) on children’s rights in relation to the digital environment](http://www.ohchr.org/en/documents/general-comments-and-recommendations/general-comment-no-25-2021-childrens-rights-relation)’

## Additional VCAA resources

Download copies of [VCAA early years resources](https://www.vcaa.vic.edu.au/curriculum/earlyyears/ey-curriculum-resources/Pages/Index.aspx).

Order [free hard copies](https://www.vcaa.vic.edu.au/curriculum/earlyyears/ey-curriculum-resources/Pages/Birth-to-8years.aspx) of VCAA early years resources.

Keep up to date with new resources and professional learning opportunities by subscribing to the [VCAA Early Years Alert](https://v6.educationapps.vic.gov.au/em/forms/subscribe.php?db=696087&s=449602&a=97403&k=ZtEnSTb9XCqhrYLgAXYMIoaqtBfoM8BYs_QzogfLtIo).

Contact the Early Years Unit, VCAA:  
Email: [veyldf@education.vic.gov.au](mailto:veyldf@education.vic.gov.au)  
Phone: (03) 9059 5158