



Tots and tech: challenges for early childhood in a digital age

Friday 5th May, 2017, Melbourne



presented by Australian Council on Children and the Media (ACCM)

Chair & Opening address

Prof Elizabeth Handsley

President Australian Council on Children and the Media, Professor Flinders Law School



Keynote address

Professor Susan Edwards, Director Early Childhood Futures research program
Learning Sciences Institute Australia, Australian Catholic University

Title: Digital media and young children – what can we learn from sociocultural theory about growing up in the digital age?

Abstract: Sociocultural theory is a popular theoretical construct used in education. Typically, sociocultural theory is used to explain children's social interactions with others as a basis for learning. However, sociocultural theory also examines the construction of the developmental niche in which children are located over time as relevant to the knowledge outcomes of previous generations. This presentation considers the cultural historical development of knowledge informing the digital age and how this has shaped a new digital media niche for the learning and developmental experiences of young children today. The role of research in both documenting young children's digital media activity, and in theorizing new ways for adults responsible for the care and education of young children, to engage in productive media relationships with young children is reviewed.



Facts & Figures: The place of media in children's lives

Dr Diana Warren, Australian Institute of Family Studies

Title: How much time do Australian children spend using media and technology?

Abstract: Data from the Longitudinal Study of Australian Children (LSAC), provides new evidence about children's time spent on different types of screen-based activities at home, including watching television, playing electronic games and using computers. The screen habits of Australian children were tracked from the ages of 4-5 to 12-13 years. Screen time varies according to the child's gender, parental education, and participation in extra-curricular activities. Television was found to be the main contributor to screen time across all age groups. The proportion of kids watching 2 or more hours daily TV was higher in families with a large number of TVs; when there was a TV in the child's bedroom; and in homes with no rules limiting the amount of TV kids may watch. In households with more educated parents, fewer kids watched 2 hours of daily TV during the week, but at the weekend all watched roughly the same amount.





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Session One: Media use in early childhood: physical development

Dr Helen Dixon PhD, Senior Research Fellow, Centre for Behavioural Research in Cancer, Cancer Council Victoria

Title: What are advertisers feeding our children?: children's exposure to and responses to food advertising.

Abstract: Children need good nutrition for healthy growth and development, and to reduce their risk of chronic disease later in life. Child-targeted food advertising has been implicated in the global obesity epidemic for its likely role in promoting excess consumption of energy-dense nutrient poor foods. This presentation provides an overview of research documenting children's level of exposure to food advertising, the types of media and advertising strategies used to target children, and children's responses to such advertising. Australian children are exposed to a considerable amount of unhealthy food advertising across a range of media and settings. Such food advertising influences children's food preferences, purchases and consumption and is a probable causal factor in childhood obesity.



Prof Leon Straker, John Curtin Distinguished Professor, School of Physiotherapy and Exercise Science, Curtin University

Title: The potential impact of increasing media use on young children's physical health and development

Abstract: As young children spend increasing time interacting with media, the potential impact of this time on physical health and development grows. This presentation will provide an overview of the potential impacts on neuro-musculo-skeletal development including fine and gross motor control, posture, spinal pain, bone density, muscle development, adiposity and sedentary behaviour related cardio-metabolic risk.



Professor Sarah Blunden, Clinical Psychologist, Head of Paediatric Sleep Research, Director Clinical Masters in Psychology Program, Central Queensland University

Title: Screen time or sleeptime: Gotta make a choice

Abstract: Reduced sleep quantity and quality are known to affect behaviour, attention, learning, mood, and appetite and weight status both in the short and long term. One factor shown to reduce sleep quantity and quality of sleep is the use of screens, particularly at bedtime, as it decreases sleep quality, increases psychological arousal, changes sleep architecture, induces anxiety, emotional arousal and nightmares. Yet it is increasingly part of bedtime routines in young children. This presentation will present evidence based information on the use of screens before bedtime and its impact on sleep and subsequently on general health. Strategies and suggestions as to how we can utilise screens without jeopardising sleep will conclude the session.



Session Two: Media use in early childhood: social and emotional development

Dr Justin Coulson, Honorary Fellow at the Centre for Positive Psychology in the Graduate School of Education, University of Melbourne

Title: Toddlers and Touchscreens: How screen use in childhood impacts on social and emotional development

Abstract: Technology's rapid advance is almost universally applauded and seen as positive. But technology has advanced into our loungerooms, our bedrooms, and into our toddler's hands and significant and important questions need to be answered regarding technology's impact on our children's social and emotional development. Is staring at and interacting with screens affecting our children? If yes, is it for better or for worse? Does context matter? Are all technologies equal, and are all contexts and uses equal? Importantly, if technology does pose risks for the wellbeing and optimal development of our children, what can parents and caregivers do to minimise risk and promote a healthy digital diet from a young age?



Session 3: Media use in early childhood: cognitive development, play and education

Associate Professor Jordy Kaufman, Director of the Swinburne Babylab, Swinburne University of Technology

Title: Promise and Pitfalls of Educational Apps for Preschool Children

Abstract: Touchscreen apps aimed at preschool children often promise real educational benefits, but few incorporate design decisions reflecting the science of learning. In this session, the case is made that the educational value of an app (or any activity) will depend on how gameplay relates to key principles of learning.



Dr Kate Highfield, Senior Lecturer, Swinburne University of Technology

Title: Child's play? Examining young children's media, tools, tech-toys and techno-tots.

Abstract: This session examines young children's media use in relation to education and play. By exploring the ideas of tech-toys and tools and presenting current usage the session focuses beyond ideas of screen time to look at concerns and opportunities for techno-tots.



Jonathan Anstock, M.Ed (Steiner) Protecting Childhood

Title: Coming to our senses for balanced cognitive development

Abstract: Neuroscience supports ancient wisdom that we have three brains - gut, heart and head, with heart the balancer. Moral cognition may be as important to our inner life as physiological balance is to one of our inner "senses of perception". According to Rudolf Steiner balance is one of the four foundation inner senses of early childhood - touch, movement, joie de vivre and balance. Are they nourished in front of a screen? In Steiner's sense schema there are twelve. All are important for balanced cognition. The four foundation senses are precursors of higher senses. Ennobling and nurturing the foundation senses happens naturally via three (and maybe four) dimensional experience. Children's developmental milestones have not changed in 100 years but their opportunities may have in our digital age. Eight years of age is internationally recognised as a turning point in childhood, and rightfully so, because children naturally experience a very important developmental milestone. The more we understand these intrinsic developmental milestones and the value of "coming to our senses", the better we can facilitate balanced multi-intelligence development of individuals and future society.





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Panel: Who has a role to play in promoting healthy use of media?

Facilitator

Prof Elizabeth Handsley

President Australian Council on Children and the Media

Professor Flinders Law School



Panel members

Professor Susan Edwards, Director Early Childhood Futures research program,
Learning Sciences Institute Australia, Australian Catholic University

Dr Justin Coulson, Honorary Fellow at the Centre for Positive
Psychology in the Graduate School of Education, University of Melbourne

Jenny Buckland, CEO, Australian Children's Television Foundation

Professor Harriet Hiscock,
Director, Health Services Research Unit, The Royal Children's Hospital

Ms Clare McHugh, Learning Hub Content Manager & Digital Initiatives, Early Childhood Australia

Dr Lisa Mundy, Murdoch Childrens Research Institute

Phillip Spratt, President of Australian Council of State School Organisations

