



Children Online:
Research and Evidence

Theories and Concepts for Understanding Children’s Digital Lives: An Annotated Bibliography

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This annotated bibliography provides a roadmap for understanding nine key areas of children’s digital lives. It has been designed for researchers and research users and provides essential and supplementary texts on each of the areas.

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Key areas of children’s digital lives

Children and young people The child, children, young people Development and evolving capacity Structures and cultures of childhood Diversity and difference	Digital environment Technology and affordances Uses, users and domestication Normative values in design Innovation, datafication and AI	Access Place and time of access In/equality and in/exclusion Fixed, mobile and wearable Transcending on/offline
Opportunities and benefits Internet engagement Engagement and participation Information and exploration Play, creativity, fun	Skills and literacies Learning and information skills Digital skills and competencies Data literacy and e-Safety Civic and other literacies	Risk and harm Content, contact, conduct, contract Familiar and emerging risks Cross-cutting risks including privacy Relation between risk and harm
Health and wellbeing Digital wellbeing and health Mental ill health and anxiety Resilience and coping Vulnerability	Social support Parental mediation Socialisation, family and school Sociality and peer support Professional help services	Policy and regulation Children’s rights in the digital age Law, policy and regulation Agency, voice and activism Responses to emerging challenges



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1. CHILDREN AND YOUNG PEOPLE

The concept of the ‘child’ or ‘children’, along with alternative terms such as ‘youth’, ‘kid’, ‘adolescent’ or ‘teenager’, is surprisingly fraught. Even referring to age does not resolve matters. Many researchers follow the UN Convention on the Rights of the Child in defining a child as a person from birth to 18. Others use the term ‘child’ until puberty and ‘young person’ thereafter.

The choice between ‘adolescent’ or ‘youth’ tends to signal a psychological or sociological approach, although some sources suggest ways to overcome this (and other) polarisations. Relatedly, theories of child, children and childhood differ in the emphasis they place on age, development and maturation or on societal processes of socialisation, culture, policy and critique.

These differing theorisations have consequences for how we conceptualise children online in terms of agency, vulnerability and the range of influences that shape children’s outcomes.

 **Alper, M., Katz, V.S. & Clark, L.S. (2016). Researching children, intersectionality, and diversity in the digital age. *Journal of Children and Media*, 10(1), 107–114.**

A short but powerful plea for an asset rather than a deficit approach to children and childhood, and to intersectionality in research with children in the digital age. This invites attention to the multiple factors that differentiate among children’s life chances, including gender, ethnicity, socio-economic status and disability.

Barr, R. (2019). Growing up in the digital age: Early learning and family media ecology. *Current Directions in Psychological Science*, 28(4), 341–346.

This article adopts an ecological perspective to media use by children and their parents to unpack critical questions that derive from growing up in a digital age.

Bronfenbrenner, U. (1979). *[The Ecology of Human Development](#)*. Harvard University Press.

The classic socio-cultural account of how the child is socialised within concentric circles of social influence, from the family (closest) to society (widest). This has been influential in offering a way of combining individual and psychological factors and also social and cultural ones within a single analysis.

 **Buckingham, D. (ed.) (2007).** *[Youth, Identity, and Digital Media](#)*. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning.

Contributors discuss how growing up in a world saturated with digital media affects the development of young people's individual and social identities.

Cook, D.T. (2020). *[The Moral Project of Childhood](#)*. NYU Press.

The author points to the role of the market in creating the subject role of the child, the social politics of motherhood, historical anxieties about childhood and early children's consumer culture. The book discusses child rearing as a moral project involving mothers' management of taste, discipline and punishment, play and toys, and social expectations.

 **Cowan, K. (2020).** *[A Panorama of Play – A Literature Review](#)*. Digital Futures Commission, 5Rights Foundation.

This report considers different theories and insights about the nature of play and its importance for children, focusing in particular on free play, where children have a high degree of choice and control.

Cunningham, H. (2006). *[The Invention of Childhood](#)*. BBC Books.

This book explains the social history of childhood in the West in carefully researched yet accessible terms. It offers a socio-cultural rather than an essentialist account to position current explorations of digital childhood in historical terms.

Gittlins, D. (1998). *[The Child in Question](#)*. Macmillan Press.

This book discusses important tensions and contradictions implicit in notions of children and childhood. It examines how children can at once represent innocence, beauty and hope, while at the same time they are neglected, disenfranchised and abused. It provides a provocative exploration of what 'the child' means, and has meant, to adults.

Hammersley, M. (2017). *[Childhood studies: A sustainable paradigm?](#)* *Childhood*, 24(1), 113–127.

This is a somewhat provocative article that addresses the persistent and major bifurcations of the field of childhood studies (child development vs. socio-cultural approaches, qualitative vs. quantitative, deficit vs. agency), and challenges the field to live up to its aspirations.

Hockey, J. & James, A. (1993). *[Growing Up and Growing Old: Ageing and Dependency in the Life Course](#)*. SAGE Publications.

This book theorizes issues related to dependency, personhood and power in Western societies, paying attention to language and social practices, and noting how childhood is a key concept for other 'life stages'.

Holloway, S. & Valentine, G. (2000). [Children's Geographies and the New Social Studies of Childhood](#). In S. Holloway & G. Valentine (eds) *Children's Geographies: Playing, Living, Learning* (pp. 1–26). Routledge.

From a pre-mobile media time, this is a contribution from human geography for considering children's relations with place and space. It explains the importance of material and also symbolic contexts for everyday life, including the child's perspective on meaningful places as they see it. It offers many possibilities for analysing spaces and places in the digital environment.

James, A., Jenks, C., & Prout, A. (1998). [Theorizing Childhood](#). Polity Press.

This is a classic, and impassioned, exposition of the new sociology of childhood that rejects Piagetian-inspired accounts of child development as progressive, individual and primarily cognitive. Although, arguably, it overstates its case, this book marked out a new way of thinking about children as social, cultural and with agency, within a broadly structurational, critical and social constructivist framework.

 **Littleton, K. & Kucirkova, N. (2020).** [The distance between the 'self' and the 'other' in children's digital books](#). *Frontiers in Psychology*, 11, 589281.

Littleton and Kucirkova bring together a wide array of literature related to children's reading, and propose a model that explicates understanding of the underlying mechanisms of a child's cognitive understanding of 'self' in relation to 'other'.

Messenger Davies, M. (2010). [Children, Media and Culture](#). Open University Press.

This book examines the view that technology has dramatically changed modern children's lives and the concerns round the media effects (of internet, computer games, digital television, mobile phones) on childhood. It draws on different disciplines, including historical, sociological, psychological and political approaches, and examples such as fairy tales, films, books, art and games.

Oswell, D. (2013). [The Agency of Children: From Family to Global Human Rights](#). Cambridge University Press.

The book re-evaluates how children's agency is conceptualised in childhood studies. Drawing on notions of assemblage from post-structuralism, the book examines the spatial, temporal and material complex of children's agency in a world of networked technologies and globalisation.

 **Parcel, T. (2018).** [Children](#). Oxford Bibliographies.

A summary of sociological approaches to children and childhood.

 Rosen, R. & Faircloth, C. (2020). [Adult–child relations in neoliberal times: Insights from a dialogue across childhood and parenting culture studies](#). *Families, Relationships and Societies*, 9(1), 7–22.

This is an introductory article for the Special Issue ‘Childhood, Parenting Culture and Adult–Child Relations in Global Perspectives’. It provides an overview of childhood studies and parenting culture studies, and suggests a move towards more relational approaches in the social sciences. The authors argue that there are both new and existing inequities underpinning childhood and parenting cultures and a changing relationship between state, family and capital.

Shapiro, J. (2018). [*The New Childhood: Raising Kids to Thrive in a Connected World*](#). Little, Brown & Company.

Although it is written more as a public scholarship book, each chapter is very well documented and referenced. It has a non-moral panic approach, inviting educators and parents to embrace new technologies for connecting with children, and rethinking together the cultural norms of the future.

Trotter, S. (2018). [The child in European Human Rights Law](#). *The Modern Law Review*, 81, 452–479.

This article examines the category of ‘the child’ in European Human Rights Law and points to its (mutual) dependency on ‘the self’ and a self-understanding narrative.

Wyn, J. & White, R. (1997). [*Rethinking Youth*](#). Allen & Unwin.

This book challenges the conventional wisdom surrounding the position and opportunities of young people today, and provides a systematic overview of the major perspectives in youth studies.

 UNICEF (2017). [*The State of the World’s Children 2017: Children in a Digital World*](#). New York.

UNICEF’s global environmental scan has been important in setting an international agenda for better understanding and better policy for children in the digital environment. It frames a wide range of evidence on children online within a child rights approach, drawing on the UN Convention on the Rights of the Child, and highlighting the problems of digital inequality, especially between the Global North and Global South.

Zaman, B. & Vanden Abeele, V. (2010). [Laddering with Young Children in User eXperience Evaluations: Theoretical Groundings and a Practical Case](#). In IDC ’10, Proceedings of the 9th International Conference on Interaction Design and Children (pp. 156–165). June. Barcelona.

This paper reviews the developmental literature suggesting that young children have the cognitive capabilities to perform as laddering interviewees, and applies and assesses this in practice.

2. DIGITAL ENVIRONMENT

This section addresses theories and concepts for analysing the relation between technology and users. Several of the suggested sources advocate a holistic view of the digital environment, concerned that research on children often focuses on particular, new or salient technologies without contextualising these within the overall media environment (for example, by using concepts of mediatisation or datafication) or the diverse societal or cultural contexts of children's lives.

Most of the interesting theory on digital technology and the digital environment (or ecology) is focused on the generic 'user'. There has been relatively little attention to the child's perspective on the digital, or on how the design and deployment of digital technologies specifically supports or undermines children's lives and children's rights.

 Ahn, S. (2021). [Symmetrifying smart home](#). *Media Theory*, 5(1), 89–114.

This article discusses the implications from the domestic application of the Internet of Things (IoT), suggesting that the 'smart home' changes the socio-phenomenological meaning of place-making. It uses the term 'topological power' to refer to the perpetual binding of smart spaces and the multiplicity of their structure.

Bollmer, G.D. (2018). [Theorizing Digital Cultures](#). SAGE Publications.

This book explains how digital media affects identities, bodies, social relations and practices, drawing on key theorists.

 boyd, d. (2011). [Social Network Sites as Networked Publics: Affordances, Dynamics, and Implications](#). In Z. Papacharissi (ed.) *Networked Self: Identity, Community, and Culture on Social Network Sites* (pp. 39–58). Routledge.

The idea of affordances captures what it is that technologies offer, or make available, to their users. boyd's account of digital affordances as persistence, visibility, spreadability and searchability has become something of a modern classic, being widely used to examine how children and young people engage with digital media.

Bruns, A. (2008). [Blogs, Wikipedia, Second Life and Beyond](#). Peter Lang.

Written at the height of the excitement over user-generated content and the prospect that the digital environment radically repositions people not merely as recipients but also as creators of content and participants in the digital public sphere, Bruns offers an exploration of the developing participatory online culture and the factors that drive this process, and coins the term 'produsage', a new process for the continuous creation and extension of knowledge and art by collaborative communities that has the potential to affect many aspects of our lives, from culture to economy and politics.

 Bucher, T. (2020). [The right-time web: Theorizing the kairologic of algorithmic media](#). *New Media & Society*, 22(9), 1699–1714.

This article draws on social theory, media studies and rhetoric to discuss the implications from real-time or near-instantaneous content production and delivery.

Clark, L.S. (2009). [Theories: Mediatization and Media Ecology](#). In K. Lundby (ed.) *Mediatization: Concept, Changes, Consequences*. Peter Lang, 85-100.

Clark offers a theoretical discussion of the concepts of mediatization and media ecology.

 **Coleman, R. (2020).** [Refresh: On the temporalities of digital media 'Re's](#). *Media Theory*, 4(2), 55–84.

This article theorises the refreshing of digital media streams and feeds, paying particular attention to the temporality of digital content. Taking Raymond Williams' notion of 'a structure of feeling' and using empirical evidence, Coleman argues that the refreshing of digital media indicates a non-linear temporality and is experienced as a generational belonging.

Couldry, N. & Hepp, A. (2017). [The Mediated Construction of Reality](#). Polity Press.

This book explores the processes through which an everyday world is constructed in and through media. It discusses the technology-based interdependence between humans and machines, and the cultural and institutionalised practices around them, framed with the structure–agency debate.

DeNardis, L. (2020). [The Internet in Everything: Freedom and Security in a World with No Off Switch](#). Yale University Press.

Although DeNardis' book is not focused on children and young people, it provides an excellent analysis of the key developments in and implications of the shift to the Internet of Things (IoT). It thus provides a framework for critically examining emerging technologies and for exploring what these mean for families' privacy, security and everyday practices.

 **de Reuver, M., Sørensen, C. & Basole, R. (2017).** [The digital platform: A research agenda](#). *Journal of Information Technology*, 33(2), 124–135.

This article provides a discussion of the conceptual challenges related to digital platforms and the need for clarity of definitions.

Deuze, M. (2020). [The role of media and mass communication theory in the global pandemic](#). *Communication Today*, 11(2), 4–16.

Deuze uses seven fundamental theories to explain the role of media in contemporary society drawing on theoretical insights related to mass society theory, social constructivism and mediatization.

 **Ferrari, V. (2021).** [Introducing the glossary of decentralised technosocial systems](#). *Internet Policy Review*, 10(2).

This is an editorial introduction to a collection of open access articles by experts from various disciplines discussing the social, technical, economic and political aspects of decentralised, encryption-based, peer-to-peer technologies. The concepts covered by the Special Issue are: [reputation](#), [digital scarcity](#), [smart contracts](#), [self-sovereign identity](#), [mining](#), [blockchain-based](#)

technologies, cryptoeconomics, blockchain governance, trust in blockchain-based systems, decentralised autonomous organisation, decentralised autonomous organisation and cryptocurrency

 Flew, T. (2017). [The 'theory' in media theory: The 'media-centrism' debate](#). *Media Theory*, 1(1), 43–56.

This article offers a review of various approaches to understanding the relationship of media to wider society, with a set of critiques of media-centrism. Concepts such as media-centrism, the mediasphere, medium theory, media ecologies and mediatisation are introduced as a challenge to more traditional social theories applied to media.

 Goggin, G. (2013). [Youth culture and mobiles](#). *Mobile Media & Communication*, 1(1), 83–88.

This article provides a good summary of the first phase of youth and mobile phone research, and provides links to further reading on researchers in the field.

 Haddon, L. (2013). [Mobile media and children](#). *Mobile Media & Communication*, 1(1), 89–95.

Situated within the context of wider social change, this article explores a broad range of topics related to children and mobile phones.

 Hepp, A. & Hasebrink, U. (2018). [Researching Transforming Communications in Times of Deep Mediatization: A Figurational Approach](#). In A. Hepp, A. Breiter & U. Hasebrink (eds) *Communicative Figurations: Transforming Communications in Times of Deep Mediatization* (pp. 15–48). Palgrave Macmillan.

Hepp and Hasebrink argue that, in our present time of 'deep mediatisation' we cannot identify single or straightforward media effects but must examine how socio-technological environments contribute to the social contexts ('communicative figurations') in which children grow up (along with family, schools, peers, etc.). Additionally, specific communicative practices emerge in these social contexts that contribute to the development of the digital environment.

 Hildebrandt, M. (2020). [Smart technologies](#). *Internet Policy Review*, 9(4).

The article discusses smart technologies from the point of view of the post-phenomenological philosophy of technology and embodied cognition. It offers a relational and ecological understanding of the constitutive relationship between humans and technologies.

 Hug, T. & Leschke, R. (2021). [On the medialization of the world and the mediatization of discourse](#). *Media Theory*, 5(1), 59–88.

Hug and Leschke discuss the notions of medialisation and mediatisation and the politics behind the concepts, drawing on German media and communication studies.

 Hutchby, I. (2001). [Technologies, texts and affordances](#). *Sociology*, 35(2), 441–456.

A classic article on the notion of digital affordances, offering a critical sociological analysis of how the digital environment 'affords' or offers particular structured ways in which users (people) can, or are likely to, engage with technologies. The emphasis on affordances avoids listing the independent

features of technological devices or services, and instead invites analysis of how technologies and their users can be mutually defined and productively understood as co-dependent.

 Jaakkola, M. (2019). [From vernacularized commercialism to kid bait: Toy review videos on YouTube and the problematics of the mash-up genre.](#) *Journal of Children and Media*, 14(2), 237–254.

User-led production agency, primarily discussed from an adult perspective, is becoming increasingly relevant with regard to children, with concepts such as user-generated content, produsage, presumption, vernacular creativity, participatory culture etc. This is an under-researched area from the children and youth perspective, but may provide important insights for children's and young people's online agency.

 Katzenbach, C. & Bächle, T.C. (2019). [Defining concepts of the digital society.](#) *Internet Policy Review*, 8(4).

An editorial introduction to a collection of open access articles that define and discuss fundamental concepts related to the digital society, referring to key frameworks and theories. Each article contextualises the concept in relation to its origin and academic traditions, and analyses its contemporary use in different research approaches. The concepts covered by this Special Issue are: [algorithmic governance](#), [datafication](#), [filter bubble](#), [platformisation](#) and [privacy](#).

 Laskowska, M. & Marcyński, K. (2019). [Media ecology – \(Un\)necessary research perspective in communication and media studies.](#) *Mediatization Studies*, 3, 53–68.

This article discusses the origin and development of the concept of 'media ecology', offering an overview of the different contexts in which the term has been used. The authors argue that a common feature of the different approaches is the understanding of media ecology as an environment with inherent biases in which individuals symbolically construct the world they come to know, and the social, economic, political and cultural consequences from this process. The era of Big Data adds additional dimensions to this environment.

 Livingstone, S. & Lunt, P. (2014). [Mediatization: An Emerging Paradigm for Media and Communication Studies.](#) In K. Lundby (ed.) *Mediatization of Communication. Handbooks of Communication Science* (21) (pp. 703–724). De Gruyter Mouton.

The concept/theory of mediatisation, although highly significant and popular in media studies, is still underused in researching and theorising 'children online' and its broader institutional and societal context. This chapter examines the relation between mediatisation and mediation, and positions it in relation to other '-isations' such as globalisation, individualisation and commercialisation.

Lum, C.M.K. (2006). [Perspectives on Culture, Technology and Communication: The Media Ecology Tradition.](#) Hampton Press.

Lum's book offers an introduction to media ecology as a theory that encompasses a coherent body of canonical literature and perspectives on understanding culture, technology and communication. It explains some of media ecology's defining ideas, theories or themes about the interrelationship between culture, technology and communication.

Lupton, D. (2020). [Data mattering and self-tracking: What can personal data do?](#) *Continuum*, 34(1), 1–13.

The ‘vital materialism’ framework is interesting as it offers the opportunity to see what data ‘can do’ for users. It needs to be problematised in terms of how agency is distributed between the subject and the object, and even though this contribution is not focused on children, it can be of interest for those studying children’s datafication and how, for example, (self-tracked) data can tell the truth about something the subject may not know otherwise.

Lupton, D. & Williamson, B. (2017). [The datafied child: The dataveillance of children and implications for their rights.](#) *New Media & Society*, 19(5), 780–794.

This article brings together the theory of data and datafication with theories of childhood, and sets out the many – and largely adverse – ways in which children’s lives are tracked, quantified and monetised from birth. It introduces a conceptual framework centred on ‘dataveillance’ (surveillance through data collection and the construction of ‘digital data assemblages’). It complements the traditional research focus on how children use digital technologies, with an emphasis on how children are used by digital technologies.

 McHale, S.M., Dotterer, A. & Kim, J.Y. (2009). [An ecological perspective on the media and youth development.](#) *The American Behavioral Scientist*, 52(8), 1186–1203.

This perspective is modelled after Bronfenbrenner’s (1979) conceptualisation of the ecology of human development, and depicts the nature and range of contextual influences on youth media use.

McMahon, C. (2019). [The Psychology of Social Media.](#) Routledge.

A short, accessible treatment applying psychology to social media usage. Structured across the main elements of social media (profiles, connections etc.), it includes case studies from various episodes in recent history (the ‘ice bucket challenge’, A Gay Girl in Damascus, etc.), interpreted with regard to relevant theories or concepts (social capital, context collapse, telepresence etc.).

 *Media Theory* (2019). [Special Issue on Rethinking Affordance,](#) 3(1).

The Special Issue offers a theoretical overview of affordance, discussing a range of classical and new theorists.

Mitchell, W. (2003) [Me++: The Cyborg Self and the Networked City.](#) The MIT Press.

Mitchell first described the concepts ‘living lab’ or ‘virtual lab’ in this book, referring to an iterative process of innovation where developers of the tool/environment, users and researchers work together in the co-creation, testing, experimentation and evaluation of an ICT product. The living lab methodology is becoming more popular for involving users as designers of the product. It also enables researchers to collect data in real-life settings.

 Plantin, J.C., Lagoze, C., Edwards, P. & Sandvig, C. (2016). [Infrastructure studies meet platform studies in the age of Google and Facebook.](#) *New Media & Society*, 20(1), 293–310.

This article examines the characteristics of digital platforms, and makes the case that they are increasingly becoming part of society’s infrastructure (akin to the electricity or transport system). The

concepts of infrastructure and platform are insightfully contrasted in terms of their architecture, market structure, temporality, scale and user agency, among other factors.

Ragnedda, M. & Muschert, G. (2018). *Theorizing Digital Divides*. Routledge.

This book explores digital divides and inequalities from a theoretical perspective, presenting different perspectives and theoretical approaches in analysing digital inequalities and examples of how each theory is applied in research.

 **Rasmussen, T. (2014).** [Internet and the political public sphere](#). *Sociology Compass*, 8, 1315–1329.

This article applies Habermas' theory of the public sphere to the internet, thinking through the challenges of the digital as a platform or infrastructure for critical, rational debate.

 **Simon, J., Wong, P.-H. & Rieder, G. (2020).** [Algorithmic bias and the value sensitive design approach](#). *Internet Policy Review*, 9(4).

This article outlines the current debates on algorithmic bias and fairness in machine learning, and discusses how a value sensitive design approach could contribute to understanding the key issues.

Taylor, E. & Rooney, T. (eds) (2017). *Surveillance Futures: Social and Ethical Implications of New Technologies for Children and Young People*. Routledge.

This edited collection addresses the main spheres of children's lives including self, school and social life through the prism of technological surveillance and its consequences. A wide range of current and emerging technologies is identified and critically examined, in order to draw out a multidisciplinary exploration of the socio-political and ethical implications throughout childhood and youth.

 **Vanden Abeele, M.M.P. (2016).** [Mobile youth culture: A conceptual development](#). *Mobile Media & Communication*, 4(1), 85–101.

This article sheds light on the theoretical foundations of 'mobile youth culture' by first describing how culture is constituted by commonalities in adolescent mobile phone use, and then by tracing the origins of said commonalities through network analysis.

 **Wei, R. (2013).** [Mobile media: Coming of age with a big splash](#). *Mobile Media & Communication*, 1(1), 50–56.

This article draws on foundational scholarship in new media research to examine mobile media. Wei conceptually explores how the advent of mobile telephony – as a wireless telecommunication system and portable platform for human communication – has transformed the classical definition of mass communication.

3. ACCESS

This section addresses theories and concepts for analysing the relationship between access to technology and the implications for children's everyday lives. Many of the suggested sources point to the multifaceted nature of access that goes beyond the type of device children use and the places where they go online to incorporate dimensions such as quality of internet connectivity, functionality of devices or opportunities to use them, and number of different types of devices vs. mobile-only access. The sources introduce important dimensions related to the role of existing social and economic inequalities (for example, based on gender, household income, parental education, household ownership and use of devices), which shape how children engage with the digital and the outcomes that result from such inequalities.

Several approaches point to the need to conceptualise access in relation to the individual, social and community contexts of children's lives, thus theorising access as social and relational – for example, with regards to the encouragement and support children receive to use technologies (or the opposite, the restrictions and limitations), the role that access to technology plays in children's domestic life, relationships and socialising.

 Berker, T., Hartmann, M., Punie, Y. & Ward, K.J. (eds) (2006). *[The Domestication of Media and Technology](#)*. Open University Press.

This is a definitive statement of domestication theory, setting out how technology adoption is hardly the end of the story but rather, the beginning of the process of material and symbolic appropriation of technologies within diverse households. As the contributors to this edited volume argue, to understand the role of technology in family life, we must explore the dynamic process of 'taming' the 'wild' digital objects to understand how people actively make them meaningful in context.

 Helsper, E.J. (2017). *[A socio-digital ecology approach to understanding digital inequalities among young people](#)*. *Journal of Children and Media*, 11(2), 256–260.

Access to the digital environment is explained in terms of individual, social and community contexts, going beyond accounts of individual access to technology or even digital skills. Socio-digital ecologies are proposed and argued to shape how young people engage with the digital and the particular outcomes that result. Thus it is not enough to provide technology, or educate to raise skill levels, without taking into account children's biography and context.

 Helsper, E.J. (2017). *[The social relativity of digital exclusion: Applying relative deprivation theory to digital inequalities](#)*. *Communication Theory*, 27(3), 223–242.

Scholars working in the field of digital inequalities will benefit from Helsper's elaboration of relative deprivation theory. The 'social relativity of digital exclusion' framework will enable researchers to determine how individuals and communities come to value ICTs through a process of everyday comparisons.

Katz, V.S. (2017). *[What it means to be 'under-connected' in lower-income families](#)*. *Journal of Children and Media*, 11(2), 241–244.

Katz argues that access to technologies should be understood in terms of a continuum of connection, with some users being ‘underconnected’. The reasons for ‘underconnectedness’ can be inconsistent and low-quality internet connectivity, limited functionality of devices or opportunities to use them, or by having mobile-only access. This affects how meaningful digital connectivity is to children’s everyday lives. For families (problematically) defined by their deficits – in income, parental education, minority status, and so forth – their frequent and intense technology engagement should be treated as an asset by initiatives to reduce digital inequality.

Mascheroni, G. & Ólafsson, K. (2014). [*Net Children Go Mobile: Cross-National Comparisons*](#). Educatt.

This report presents how children across several countries in the EU access the internet (with a focus on access, use, divides) from the results of the Net Children Go Mobile project. It presents access and use looking at different parameters: where children use the internet, age of first use, which device and apps are used, ownership, and also parents’ use of the internet. Although it is largely empirical, it represents a prioritisation of the main factors that define access and associated inequalities.

 **Nikken, P. & Oprea, S.J. (2018).** [*Guiding young children’s digital media use: SES differences in mediation concerns and competence*](#). *Journal of Child Family Studies*, 27, 1844–1857.

This article follows Bourdieu’s theory of social cultural capital to argue that parents will differ in concerns and mediation practices, since systematic distinctions in social, cultural and economic capital among parents may affect a family’s affinity with media.

Ragnedda, M. & Muschert, G.W. (2013). [*The Digital Divide: The Internet and Social Inequality in International Perspective*](#). Routledge.

This book introduces the concepts of digital divides and digital stratification in the light of social stratifications. These are relevant for understanding differences in access between various socio-demographic groups of children.

Tondeur, J., Sinnaeve, I., van Houtte, M. & van Braak, J. (2011). [*ICT as cultural capital: The relationship between socioeconomic status and the computer-use profile of young people*](#). *New Media & Society*, 13(1), 151–168.

The article deals with the topic of digital divide by investigating whether and how differences in access and computer use relate to children’s inequalities in terms of cultural capital.

 **Vicente, M.R. & Lopez, A.J. (2010).** [*A multidimensional analysis of the disability digital divide: Some evidence for internet use*](#). *Information Society*, 26(1), 48–64.

This article proposes a framework for discussing digital divides in relation to disability that incorporates multiple internet-related dimensions such as access, affordability, motivation and attitudes, and skills.

Warschauer, M. (2006). [*Laptops and Literacy: Learning in the Wireless Classroom*](#). Teachers College Press.

Warschauer provides a detailed exploration of the micro-processes of power, privilege and exclusion operating in the classroom in the context of national efforts to introduce technology into learning. The result is a nuanced and critical analysis of what is meant by access to technology, rejecting diffusion or marketing approaches, along with much government policy.

4. OPPORTUNITIES AND BENEFITS

This section addresses the theories and concepts for analysing children's engagement with digital technologies and the internet, pointing to a wide range of benefits and opportunities, including socialising, creativity, civic engagement, entertainment and learning. A common theme is the posing of a theoretical challenge to the common-sense distinction between online and offline engagement. Recognising the multiple interdependencies between online and offline activities, researchers are instead seeking a comprehensive approach that distinguishes between different types of engagement, depending on the context, and on the outcomes for children, many but not all of which are conceived of as beneficial.

Some authors propose a hierarchical classification of online activities (or modes of engagement), arguing that some but not all children are able or supported to 'climb the ladder' and engage in more complex digital activities. Another direction of theorising explores the connections between online engagement and longer-term benefits for children, such as scaffolding child development and learning, and impacting positively on children's life outcomes.

 **Brites, M.J. & Ponte, C. (2018).** [Reasons and circumstances that lead to the non-use of media by young people and their families.](#) *Comunicação e Sociedade*, 34, 411–429.

This article tackles the underdeveloped area of media resistance among young people and families, from the point of view of deep mediatisation, disconnection studies and also social capital traditions.

Brites, M.J., Ponte, C. & Menezes, I. (2017). [Youth talking about news and civic daily life.](#) *Journal of Youth Studies*, 20, 3, 398–412.

This article considers how young people talking about news and politics in their family and peer contexts influences their civic life. Based on talking and news-mediated contexts and habits (from diverse social, economic and cultural backgrounds), the authors identified three different profiles: limitations to empowerment; civic capital and self-empowerment; and socioeconomic conditions and empowerment. These show how family and peer talking play a central role in strengthening and making a habitus of being an active citizen, even in contexts with limited cultural, economic and social conditions.

 **Colvert, A. (2021).** [The Kaleidoscope of Play in a Digital World: A Literature Review.](#) Digital Futures Commission, 5Rights Foundation.

The report outlines the possibilities and challenges of children's free play in the digital environment, exploring the similarities and differences with free play in general, and tackling the specifics of digital affordances as they shape play possibilities.

 Dahlgren, P. and Hill, A. (2020). [Parameters of media engagement](#). *Media Theory*, 4(1), 1–32.

Dahlgren and Hill discuss how media engagement has become synonymous with social media analytics and ratings performance but should instead be theorised as subjective experience linking the personal, socio-cultural and political. They use a model with five parameters of media engagement – in relation to media contexts, motivations, modalities, intensities and consequences.

 Fingerhut, J. (2021). [Enacting media. An embodied account of enculturation between neuromedia and new cognitive media theory](#). *Frontiers in Psychology*, 12, 635993.

This article offers a short primer on media theory, but the work is primarily situated within a cognition perspective, which asks questions related to mental state in media engagement.

Gee, J.P. (2008). [Learning Theory, Videogames, and Popular Culture](#). In K. Drotner & S. Livingstone (eds) *International Handbook of Children, Media and Culture* (pp. 196–212). SAGE Publications.

Critiquing psychological and individualistic theories of learning, including in relation to digital environments, Gee sets out his influential socio-cultural analysis of learning, taking online games as a provocative case. He contests accounts of gaming as problematic, and insists on understanding gaming in cultural terms – as social, aesthetic and pedagogic, as with other forms of media.

 Greene, K., Yanovitzky, I., Carpenter, A., Banerjee, S.C., Magsamen-Conrad, K., Hecht, M.L. & Elek, E. (2015). [A theory-grounded measure of adolescents' response to media literacy interventions](#). *Journal of Media Literacy Education*, 7(2), 35–49.

This study offers a conceptual framework for the effects of media literacy interventions on behaviour. The authors posit that it is not participation but engagement that can explain and predict individual variations in media literacy programmes.

Hasebrink, U. (2012). [Young European's Online Environments: A Typology of User Practices](#). In S. Livingstone, L. Haddon & A. Görzig (eds) *Children, Risk and Safety Online: Research and Policy Challenges in Comparative Perspective* (pp. 127–139). Policy Press.

Hasebrink analyses how and with which outcome children use online opportunities, using the 'ladder of opportunities' approach. This is based on the notion that children can be divided into groups depending on the range of opportunities used by a particular child, moving from information-related sources to communication to advanced uses, ending with online content creation, practised by only a few. European countries are also compared in this context.

Hasebrink, U. & Domeyer, H. (2012). [Media repertoires as patterns of behaviour and as meaningful practices: A multimethod approach to media use in converging media environments](#). *Participations: Journal of Audience Research & Reception Studies*, 9(2), S757–S783.

This article proposes a conceptual approach to media-related practices that considers the overall range of media practices, including different kinds of engagement, as a comprehensive pattern. This

can help to avoid a biased picture as provided by studies that focus on specific communicative practices and neglect their embeddedness in larger patterns (or repertoires).

 Ito, M., Arum, R., Conley, D., Gutiérrez, K., Kirshner, B., Livingstone, S., Michalchik, V., Penuel, W., Pepler, K., Pinkard, N., Rhodes, J., Salen Tekinbaş, K., Schor, J., Sefton-Green, J. & Watkins, S.C. (2020). [*The Connected Learning Research Network: Reflections on a Decade of Engaged Scholarship*](#). Connected Learning Alliance.

This book reports on a sustained programme of exploration of the potential of children and young people's digital engagement. With the focus on designing to optimise youthful digital media engagement in terms of creativity, collaboration, learning and civic engagement, it reviews the lessons learned and the future direction for internet engagement in the interests of children and youth.

 Paus-Hasebrink, I. (2019). [*The role of media within young people's socialization: A theoretical approach*](#). *Communications: The European Journal of Communication Research*, 44(4), 407–426.

This article is relevant in order to research media socialisation in the context of social inequality. It combines the subjective and structural components of practice. The approach is based on three analytical concepts – options for action, outlines for action and competences for action – and advances an interlinkage of subjective perception, action-driving orientations and everyday life practices against the backdrop of (changing) socio-structural conditions.

 Paus-Hasebrink, I., Kulterer, J. & Sinner, P. (2019). [*Social Inequality, Childhood and the Media: A Longitudinal Study of the Mediatization of Socialisation*](#). *Transforming Communications – Studies in Cross-Media Research*. Palgrave Macmillan.

This book is an in-depth analysis of the nature of digital and social inequality, based on a longitudinal study (2005 to 2017) on the question of the role of media within the socialisation of socially disadvantaged children and their families.

 Ravenscroft, A., Dellow, J., Brites, M.J., Jorge, A. & Catalão, D. (2020). [*RadioActive101- Learning through radio, learning for life: An international approach to the inclusion and non-formal learning of socially excluded young people*](#). *International Journal of Inclusive Educational Review*, 24(9), 997–1018.

This article describes an original international approach to the inclusion and non-formal learning of socially excluded young people through participatory internet radio. First, it critically discusses the social and digital exclusion of young people. It then describes participatory action research methods that are influenced by the work of Dewey and Freire. The article emphasises that to support the non-formal learning of socially excluded young people, we must foreground our attention on fostering psychosocial dimensions alongside developing contemporary competences.

 Reicher, S.D., Spears, R. & Postmes, T. (1995). [*Social identity model of deindividuation effects \(SIDE model\)*](#). *European Review of Social Psychology*, 6(1), 161–198.

The social identity model of deindividuation effects (SIDE model) explains how group behaviour is affected by anonymity and identifiability. There are many social situations in which people interact in relatively anonymous ways. In social interactions on the internet, for example, people often use pseudonyms or avatars (pictures) to identify themselves, and even email addresses do not typically

provide much information about senders. An important question, therefore, is how anonymity affects people's behaviour.

 **Robinson, P.A., Allen Handy, A. & Burrell-Craft, K. (2021).** [Critical media literacy and Black female identity construction: A conceptual framework for empowerment, equity, and social justice in education.](#) *Journal of Media Literacy Education*, 13(1), 79–91.

While this article does not specifically include children, it offers an overview of critical consciousness and develops a conceptual framework for the gendered and racialised construction of identity, which can be used for teaching critical media literacy.

 **Sarwatay, D., Raman, U. & Ramasubramanian, S. (2021).** [Media literacy, social connectedness, and digital citizenship in India: Mapping stakeholders on how parents and young people navigate a social world.](#) *Frontiers in Human Dynamics*, 3.

The literature reviewed in this article aids in understanding key themes and concepts influencing media literacy, digital citizenship and social connectedness, with a specific view to diversifying media literacy scholarship beyond the context of the Global North.

Subrahmanyam, K. & Smahel, D. (2010). [Digital Youth: The Role of Media in Development.](#) Springer Science & Business Media.

This book is a useful reference as it focuses on the integration between offline and online experiences, challenging the outdated opinion according to which when children engage with the internet, they develop a different persona. Overall, the book looks at youth online through a developmental lens, offering frameworks useful to orient the theoretical and empirical analysis of children's internet engagement.

 **Wartella, E., Beaudoin-Ryan, L., Blackwell, C.K., Cingel, D.P., Hurwitz, L.B. & Lauricella, A.R. (2016).** [What kind of adults will our children become? The impact of growing up in a media-saturated world.](#) *Journal of Children and Media*, 10(1), 13–20.

This article offers a framing for media (and the internet in particular) as a 'more knowledgeable other', following Vygotsky, in order to frame children's internet engagement as an opportunity for informal learning. Technologies are conceptualised as dominant activities of childhood that can scaffold learning and inference values, for instance in relation to priorities and expectations around relationships with others, and definitions of success.

 **Woodfall, A. & Zezulcova, M. (2016).** [What 'children' experience and 'adults' may overlook: Phenomenological approaches to media practice, education and research.](#) *Journal of Children and Media*, 10(1), 98–106.

Drawing on foundational work by Husserl, Bakhtin and Dewey, this article outlines several concepts that are useful in rethinking the direction of research in this area – primarily from a media-centric to an experience-centric approach.

5. SKILLS AND LITERACIES

The concepts of skills, literacies and competences as they relate to children online is complex and somewhat contested. Contrasting approaches – more instrumental or cultural, more individual or societal, more focused on the digital or more inclusive of all forms of communication – have long been debated. A host of terms are in use, from the very specific and new (for example, data literacy or gaming literacy) to the most inclusive and long-established (for example, media literacy or critical literacy).

In different languages and theoretical traditions, different approaches are taken, often focusing on the concept of competence or competencies or, more recently, capabilities. There are also debates over the relation between digital literacies and all that such literacies enable – creativity, participation, communication, safety and so forth. A range of approaches is illustrated in the sources in this section.

Aesaert, K., Voogt, J., Kuiper, E. & van Braak, J. (2017). [Accuracy and bias of ICT self-efficacy: An empirical study into students' over- and underestimation of their ICT competences.](#) *Computers in Human Behavior*, 75, 92–102.

This study recognizes that ICT self-efficacy is not an efficient measure of children's actual digital skills, but instead focuses on how actual ICT competencies relate to children's ICT self-efficacy.

 **Alvarez, M. (2019).** [\(Digital\) media as critical pedagogy.](#) *Media Theory*, 3(1), 73–102.

This article discusses how to develop critical pedagogy in the age of digital media. Technology-enhanced learning involves relocating the learning process in the open relationship between the learner and the mediated environment.

 **boyd, d. (2018).** [You think you want media Literacy ... do you?](#) SXSWedu keynote, 9 March. Points: Data & Society blog. [See also: [boyd's response](#) to major criticisms of the talk.]

boyd offers a critique of media literacy and argues for better recognition of how information can be weaponised in new ways in an information economy.

Buckingham, D. (2007). [Digital media literacies: Rethinking media education in the age of the internet.](#) *Research in Comparative and International Education*, 2(1), 43–55.

Updating his account of media literacy from the age of mass communication (primarily television) to the age of the internet and digital media, Buckingham critiques narrow, functional or instrumental accounts of digital skills and literacy. He draws on a broadly cultural studies approach (encompassing the socio-cultural theory of learning and semiotic theory of media) to advocate for a four-dimensional account of digital literacy as encompassing an understanding of representation, language, production and audience.

 **Cappello, G., Felini, D. & Hobbs, R. (2013).** [Reflections on global developments in media literacy education: Bridging theory and practice.](#) *Journal of Media Literacy Education*, 3(2).

This article is useful for a bibliography of work of 20th-century educational scholars (primarily European) and the emergence of a shared theoretical framework to understand the practice of

cultivating critical thinking among audiences about their everyday exposure to mass media, news and popular culture.

 Carmi, E. & Yates, S.J. (2020). [What do digital inclusion and data literacy mean today?](#) *Internet Policy Review*, 9(2), 1–14.

This is an editorial introduction to a Special Issue discussing digital inequalities as an important part of broader social equity and justice focusing on the most prominent debates around digital inclusion, highlighting what is still relevant and what needs to be re-evaluated.

 Carmi, E., Yates, S.J., Lockley, E. & Pawluczuk, A. (2020). [Data citizenship: Rethinking data literacy in the age of disinformation, misinformation, and malinformation.](#) *Internet Policy Review*, 9(2).

This article discusses the meaning of literacy in times of misinformation. It provides an overview of different definitions of literacy (written, media, information, digital and data literacy) and their intersection with dis-/mis-/malinformation and ‘fake news’, and these literacies and variations in social context. It highlights three main gaps in current data literacy frameworks.

 Carretero, S., Vuorikari, R. & Punie, Y. (2017). [The Digital Competence Framework for Citizens with Eight Proficiency Levels and Examples of Use.](#) European Union.

While instrumental in its approach, the DigComp framework is influential and needs to be taken on board in the discourse on digital literacy and skills. There is a large literature on this, but this is a useful outline of the framework.

 Claes, A. & Philippette, T. (2020). [Defining a critical data literacy for recommender systems: A media-grounded approach.](#) *Journal of Media Literacy Education*, 12(3), 17–29.

This article outlines current critical data literacies approaches and uses key concepts to develop a framework defining the competences needed to assess technologies for inclusion in the digital ecosystem.

 Cortesi, S., Hasse, A., Lombana, A., Kim, S. & Gasser, U. (2020). [Youth and Digital Citizenship+ \(Plus\): Understanding Skills for a Digital World.](#) Berkman Klein Center Research Publication No 2020-2.

This report explores the concept of digital citizenship, providing an overview of the current visions, identifying gaps and unexplored areas through a systematic mapping exercise. This is a good addition to the literature on the digital citizenship.

 Cortoni, I., Lo Presti, V. & Cervelli, P. (2015). [Digital competence assessment: A proposal for operationalizing the critical dimension.](#) *Journal of Media Literacy Education*, 7(1), 46–57.

Beginning from the European framework, the authors offer a theoretical definition of critical competencies and provide an operational definition from semiotic and linguistic patterns in the scholarly literature.

 Davis, K., Katz, S.L., Santo, R. & James, C. (2013). [Fostering cross-generational dialogues about the ethics of online life.](#) *Journal of Media Literacy Education*, 2(2).

This article is useful for its consideration of the ethical dimensions of online life.

Ess, C. (2014). [*Digital Media Ethics* \(2nd edn\).](#) Digital Media and Society Series. Polity Press.

This is a very useful introduction to the field of digital media ethics and a valuable alternative perspective on civic literacies. Although questions of ethics may seem separate from questions of skills and literacies, they are, in fact, closely intertwined, including in relation to citizen journalism and digital citizenship.

 **Friesem, Y. (2017).** [*Beyond accessibility: How media literacy education addresses issues of disabilities.*](#) *Journal of Media Literacy Education*, 9(2), 1–16.

By connecting the practice of critical media literacy with disability theory, this article offers a theoretical and practical framework for media literacy educators.

 **Gibbons, D. (2013).** [*Developing an ethics of youth media production using media literacy, identity, and modality.*](#) *Journal of Media Literacy Education*, 4(3), 256–265.

This critical, theoretical article conceptualizes what determines an ethics for youth media production.

 **Gong, Z. & Holiday, S. (2021).** [*A lot like the other: Parents' consumer responses to brand-modified product placements in children's programming.*](#) *Journal of Media Literacy Education*, 13(1), 41–55.

This article could be useful for innovating methodological design. The researchers use a combination of concepts to apply a 2 (brand reference: modified vs. direct) x 2 (educational value: high vs. low) x 2 (active mediation intention: high vs. low) mixed-measures experimental design.

 **Graber, D. & Mendoza, K. (2013).** [*New Media Literacy Education \(NMLE\): A developmental approach.*](#) *Journal of Media Literacy Education*, 4(1), 82–92.

This article provides an overview of a cognitive-developmental approach to ethical thinking.

 **Hartmann, M. (2010).** [*Media Literacy/Competence, Participation and Youth. Conceptual Reflections 2.0.*](#) In T. Olsson & P. Dahlgren (eds) *Young People, ICTs and Democracy*. Nordicom, 141-158.

Hartmann explores the concept of media competence (which includes media criticism, media knowledge, media design and media use) in relation to digital participation.

 **Jenkins, H. (2009).** [*Confronting the Challenges of Participatory Culture: Media Education for the 21st Century.*](#) The MIT Press.

Jenkins is an influential advocate of the idea that digital literacy, like literacy more generally, is a complex and critical means of acting on the world. He conceives of young people drawing on digital literacy to empower them as agents and citizens working in collaboration to create, participate and express themselves, including to bring about political change.

 **Kafai, Y.B. (1995).** [*Minds in Play: Computer Game Design as a Context for Children's Learning.*](#) Lawrence Erlbaum.

Kafai is often cited as one of the first authors who promoted learning by creating computer games. She also argued that gender stereotypes are manifested in computer games for children.

Markham, A.N. (2019). [Critical pedagogy as a response to datafication](#). *Qualitative Inquiry*, 25(8), 754–760.

This contribution offers theoretical insights for the development of a critical pedagogy curriculum to develop data literacy. Basic components of such a curriculum can be adjusted and adapted as needed to theoretically inform intervention with children as well.

 **Mihailidis, P. (2014).** [Media Literacy and the Emerging Citizen: Youth, Engagement and Participation in Digital Culture](#). Peter Lang.

This book offers a normative approach to a media literate culture and is a good antidote to media panics on this subject.

 **Mihailidis, P. (2019).** [Civic Media Literacies, Re-Imagining Human Connection in an Age of Digital Abundance](#). Routledge.

This book debates the ‘civic agency gap’ in media literacy, and offers a pedagogical design for civic intentionality. It illustrates the main arguments by discussing practical examples of young citizens’ civic engagement online.

 **Meyers, E.M., Erickson, I. & Small, R.V. (2013).** [Digital literacy and informal learning environments: An introduction](#). *Learning, Media and Technology*, 38(4), 355–367.

The authors discuss digital literacy in the context of informal learning contexts. They define informal contexts as those that take place outside school – such as libraries, museums etc. – and they examine how informal contexts contribute to the development of digital literacy.

 **Pangrazio, L. (2014).** [Reconceptualising critical digital literacy](#). *Discourse: Studies in the Cultural Politics of Education*, 37, 1–12.

Pangrazio argues for a new approach to critical digital literacy that is focused less on the reception or consumption of mass-produced digital content and more on how users learn to design, make and produce digital forms and content and, in the process, gain a critical understanding of these processes.

Papert, S. (1980). [Mindstorms: Children, Computers and Powerful Ideas](#). Basic Books.

Papert is often cited as one of the most influential individuals in the field of child–computer interaction. He was one of the first to recognise that computers allow children to learn in relation to their own interests. The theory focuses on how to support children to become authors and creators rather than passive recipients of educational content or other media for children.

 **Parola, A. & Ranieri, M. (2013).** [The practice of media education: International research on six European countries](#). *Journal of Media Literacy Education*, 3(2), 90–100.

This article stems from the wide framework carried out within the OnAir European project (<http://www.onair.medmediaeducation.it>).

 Robertson, J. & Tisdall, E.M. (2020). [The importance of consulting children and young people about data literacy](#). *Journal of Media Literacy Education*, 12(3), 58–74.

This article offers three frames for the way children and young people’s digital literacy has primarily been constituted by adult concerns.

 Sander, I. (2020). [What is critical big data literacy and how can it be Implemented?](#) *Internet Policy Review*, 9(2).

This article argues that data literacy should be conceptualised not merely as skills to use digital media, the internet or big data but as ‘critical big data literacy’ that includes an understanding of the risks and implications of big data practices that enable empowered participation in a digital world. It offers a practical example of how to assess/research critical big data literacy.

 Turner, K., Jolls, T., Hagerman, M., O’Byrne, W., Hicks, T., Eisenstock, B. & Pytash, K. (2017). [Developing digital and media literacies in children and adolescents](#). *Pediatrics*, 140, 122–126.

This article provides recommendations for research and policy development, for those looking for answers to: what specific competencies must young people acquire? How do these competencies influence pedagogy? How are student knowledge, attitudes and behaviours changed? What are the best ways to assess students’ digital and media literacy?

 van Dijk, J.A.G.M. & van Deursen, A.J.A.M. (2014). [Digital Skills: Unlocking the Information Society](#). Palgrave Macmillan.

This book encompasses a wide range of theory and evidence from the burgeoning field of research on digital skills, including their relation to digital literacies of all kinds. It offers a framework centred on six digital skills, spanning technology- and content-related skills. The book’s particular strength is its discussion of multiple dimensions of difference within the general public, including attention to age from childhood through to the elderly, and in relation to socio-economic and other factors.

 UNICEF (2019). [Digital Literacy for Children: Exploring Definitions and Frameworks](#). UNICEF.

This is a concept review as well as a policy ‘think piece’ that acknowledges the debates about the definitions and consequences of digital literacy, and puts the concept in a child rights framework so as to guide policy and practice.

 Vicente, M.R. & Lopez, A. J. (2010). [A multidimensional analysis of the disability digital divide: Some evidence for internet use](#). *Information Society*, 26(1), 48–64.

Vicente and Lopez propose a framework for discussing digital divides in relation to disability that incorporates multiple internet-related dimensions, such as access, affordability, motivation and attitudes, and skills.

Witte, J.C. & Mannon, S.E. (2009). [The Internet and Social Inequalities](#). Routledge.

This book discusses the presence of an enduring digital divide, which starts with access but continues to other areas such as digital skills. Digital stratification runs deeper to produce better outcomes for those who are more able to take advantage of the benefits offered by the internet.

6. RISK AND HARM

This section addresses the theories and concepts for analysing the relation between technology, risk (related to content, contact, conduct and commerce) and children's experiences. Several sources point to the need to first distinguish and then theorise the relationship between risk and harm, risk and wellbeing, likelihood and severity of harm, and between risk, resilience and vulnerability. Other resources focus on building an understanding of children's experiences of risk in a digital world, differentiating between risks generated by children themselves (such as creating negative content or acting in a hurtful way towards others or themselves) or risks associated with the online environment (such as inappropriate or commercial content).

The approaches are somewhat unified in their recognition of risk as a lived subjective experience, and the agreement that risk needs to be considered in relation to children's individual circumstances and the wider social context in which risk occurs. Some authors go further and argue in favour of approaching risk from a children's perspective in light of children's agency and child rights.

Aven, T. & Renn, O. (2009). [On risk defined as an event where the outcome is uncertain.](#) *Journal of Risk Research*, 12(1), 1–11.

This article sets out a quantitative sociology perspective on risk as comprised of two dimensions – the likelihood of harm and the severity of harm. It argues for the importance of conceptualising risk as referring to 'uncertainty about and severity of the consequences (or outcomes) of an activity with respect to something that humans value' (Aven and Renn, 2009, p. 1).

Beck, U. (1992). [Risk Society: Towards a New Modernity.](#) SAGE Publications.

Beck's critical sociological analysis of contemporary life in the West builds on theories of late modernity to capture the particularly painful nature of everyday lives spent grappling, unequally, with risks of humanity's own making (by contrast with the natural disasters of previous periods). His focus is on the reflexive and deeply problematical experience of ordinary people's lived reality in the risk society.

 **boyd, d. (2014).** [It's Complicated: The Social Lives of Networked Teens.](#) Yale University Press.

This book is an ethnographic account of the digital risks experienced by US teenagers, carefully contextualised and presented with a socio-cultural sensibility that respects youth voice. It is an insightful corrective to some of today's moral panics about online youth, without downplaying the very real risks that face them, but also showcasing their resilience.

 **Chassiakos, Y.R., Radesky, J., Christakis, D., Moreno, M.A., Cross, C., Hill, D., Ameenuddin, N., Hutchinson, J., Boyd, R., Mendelson, R., Smith, J. & Swanson, W.S. (2016).** [Children and adolescents and digital media.](#) *Pediatrics*, 138(5).

The American Academy of Pediatrics has been hugely influential in setting guidelines for policy-makers, professionals and practitioners, as well as the general public. In this article they present a critical review of the evidence, framed within a public health theoretical perspective.

 **Ging, D. & Garvey, S. (2018).** ['Written in these scars are the stories I can't explain': A content analysis of pro-ana and thinspiration image sharing on Instagram.](#) *New Media & Society*, 20(3), 1181–1200.

This article explores how pro-ana identities and discourses manifest themselves on more open, image-based platforms, such as Instagram. It suggests that mainstreaming such practices renders visible pro-ana sensibilities in the broader context of distressed girls' lives and Western culture more generally. This increased visibility may, in fact, be a positive development.

Hurwitz, L.B., Montague, H. & Wartella, E. (2017). [Food marketing to children online: A content analysis of food company websites.](#) *Health Communication*, 32(3), 366–371.

This article presents a content analysis of food websites to see how they market their products to children, with interesting findings in terms of obesogenic foods marketing strategies.

 **Livingstone, S. (2013).** [Online risk, harm and vulnerability: Reflections on the evidence base for child internet safety policy.](#) *ZER: Journal of Communication Studies*, 18, 13–28.

Livingstone distinguishes risk from harm, drawing on theories of risk, harm and wellbeing, and explains how resilience and vulnerability mediate between risk and harm, for children's experiences in a digital world.

 **Livingstone, S. & Haddon, L. (eds) (2012).** [Children, Risk and Safety on the Internet: Research and Policy Challenges in Comparative Perspective.](#) Policy Press.

Drawing together the findings of the first phase of the EU Kids Online project, this book integrates the complex interaction of socio-demographic factors that are strongly influenced by context at a number of levels: parent/family, societal and cultural/country. These impact not only ownership but also use. The book also sets out the 3C's approach to risks and opportunities, in which digital content, contact and conduct are related to children's agency, contexts and outcomes.

 **Lupton, D. (1999).** [Risk.](#) Routledge.

Lupton provides a critical analysis and review of a wide range of social science theories, including socio-cultural and social constructionist positions; risk and governmentality; risk and subjectivity; risk and otherness; and risk and pleasure. It is helpful for framing the analysis of children's risk online.

 **McDaniel, B.T. & Radesky, J.S. (2018).** [Technoference: Parent distraction with technology and associations with child behavior problems.](#) *Child Development*, 89(1), 100–109.

This article introduces the concept of 'technoference' and investigates whether parental problematic technology use is associated with technology-based interruptions in parent-child interactions.

 **Patchin, J.W. & Hinduja, S. (2017).** [Digital self-harm among adolescents.](#) *Journal of Adolescent Health*, 61(6), 761–766.

This article provides a good overview of the problem of self-harming and pro-ana, pro-mia content on social media platforms and the communities that emerge around this issue; the article outlines the issue of digital self-harm or self-cyberbullying, which is an emerging trend that requires further research.

 Patchin, J.W. & Hinduja, S. (2020). [It is time to teach safe sexting.](#) *Journal of Adolescent Health*, 66(2), 140–143.

This article is interesting because it contextualises the issue of sexting as something that may not be harmful per se, and it acknowledges its increasing prevalence among young people, which may not go away. Rather than seeing it as inherently wrong or harmful behaviour, it proposes that practitioners may wish to acknowledge that perhaps the best policy response is to explain its possible consequences and also teach safe sexting.

 Peter, J. & Valkenburg, P.M. (2016). [Adolescents and pornography: A review of 20 years of research.](#) *The Journal of Sex Research*, 53(4–5), 509–531.

This article uses the authors' differential susceptibility to a media effects model to review research on the effects of pornography exposure on adolescents, using the theory to predict differential effects.

 Slovic, P. (2010). [The psychology of risk.](#) *Salude e Sociedade*, 19(4), 731–747.

Slovic contrasts rational models of the study of risk with people's irrational reactions to risk, and argues for the importance of trust and affect.

 Smith, P.K., Mahdavi, J., Carvalho, M., Fisher, S., Russell, S. & Tippett, N. (2008). [Cyberbullying: Its nature and impact in secondary school pupils.](#) *Journal of Child Psychology and Psychiatry*, 49(4), 376–385.

This article discusses online bullying or cyberbullying – sending (often anonymously) repeatedly intentional hurtful texts or online messages. Cyberbullying, as other types of bullying, may fuel a child's mental health problems and risky behaviour such as self-injury and disordered eating.

 Spencer, J., Olson, J., Schrager, S., Tanaka, D. & Belzer, M. (2015). [Sexting and adolescents: A descriptive study of sexting and youth in an urban population.](#) *Journal of Adolescent Health*, 56(2), S22.

This article discusses sexting – the electronic transmission of nude or seminude pictures or explicitly sexual text messages. It has been found to be related to either sexual abuse or risky psychosocial behaviours (like substance abuse) and depression in different studies.

 Stoilova, M., Livingstone, S. & Nandagiri, R. (2019). [Children's Data and Privacy Online: Growing up in a Digital Age.](#) London School of Economics and Political Science.

This research reviews the existing evidence relating to children and young people's data privacy, identifying three privacy contexts in the digital data ecology: interpersonal, institutional and commercial.

Wartella, E., Cingel, D.P. & Lauricella, A.R. (2018). [Controversy sells, but what about science? Press coverage of Thirteen Reasons Why.](#) *Journal of Children and Media*, 12(3), 368–372.

This commentary offers food for thought to reflect on how, when it comes to the tough topic of media, public discourses tend to be oriented towards a narrative focused on risks rather than

opportunities. The case of the press coverage of *Thirteen Reasons Why* is mobilised to support this argument.

7. HEALTH AND WELLBEING

The concept of wellbeing is increasingly used to theorise children's life outcomes, including in relation to the digital environment, in preference to happiness or quality of life or life satisfaction, and it relates to ideas of agency, resilience and flourishing. It is also closely related to its opposite – mental ill health, stress, anxiety and depression.

In a digital world, many concerns regarding risks relating to technology use, over-use or exclusion from use are seen as undermining a child's wellbeing. Wellbeing is often conceptualised in terms of linked but independent dimensions – physical, emotional, psychological, social, and possibly also economic.

Best, P., Manktelow, R. & Taylor, B. (2014). [Online communication, social media and adolescent wellbeing: A systematic narrative review.](#) *Children and Youth Services Review*, **41**, 27–36.

This article makes connections between social media and wellbeing, pointing to mixed effects on children. The benefits of using online technologies were reported as increased self-esteem, perceived social support, increased social capital, safe identity experimentation and increased opportunity for self-disclosure. Harmful effects were reported as increased exposure to harm, social isolation, depression and cyberbullying.

Bickham, D.S., Kavanaugh, J.R. & Rich, M. (2016). [Media effects as health research: How pediatricians have changed the study of media and child development.](#) *Journal of Children and Media*, **10(2)**, 191–199.

This article will help readers to better think of how the field of children and media has increasingly become more 'polyphonic', and to evaluate what other disciplines, especially health sciences, focus on when studying – broadly, children's media use.

 **Council of Europe (no date).** [About Digital Citizenship.](#) Council of Europe's Digital Citizenship Education Project.

This project drew on expert insights and deliberation to generate a definition of digital citizenship that incorporates the three key elements of digital engagement, digital responsibility and digital participation brought about through the critical analysis and competent use of digital technology, underpinned by a concept of citizenship founded on respect for human rights and democratic culture.

 **d'Haenens, L., Vandoninck, S. & Donoso, V. (2013).** [How to Cope and Build Online Resilience?](#) EU Kids Online.

This book looks at the different coping strategies European children employ when bothered by an online experience (resilience is defined as 'the ability to deal with negative experiences online or

offline'). The authors also discuss coping strategies adopted by children when going through negative online experiences.

Freeman, J.L., Caldwell, P.H., Bennett, P.A. & Scott, K.M. (2018). [How adolescents search for and appraise online health information: A systematic review](#). *The Journal of Pediatrics*, 195, 244–255.

This article reports on a systematic review on adolescents' health-related information seeking and assessment of the sources they find. It argues that adolescents are aware of the varying quality of online health information, and strategies used for searching and appraising online health information differ in their sophistication.

 **Kalmus, V., Siibak, A. and Blinka, L. (2014).** Internet and Child Well-being. In A. Ben-Arieh, F. Casas, I. Frønes & J.E. Korbin (eds) [Handbook of Child Well-Being: Theories, Methods and Policies in Global Perspective](#) (pp. 2093–2133). Springer.

This chapter employs classical conceptualisations of the quality of life to define and structure the aspects of child wellbeing as related to the internet. In treating 'wellbeing' as a multidimensional construct, the authors combine Allardt's (1993) classification of individual human needs ('having', 'loving' and 'being') with categorisations from a psychological approach and the UNICEF Index of Children's Well-Being, as well as the societal aspect. The chapter discusses six components of wellbeing as related to the internet: material, physical, psychological, social, developmental and societal.

 **Livingstone, S., Mascheroni, G. & Staksrud, E. (2018).** [European research on children's internet use: Assessing the past, anticipating the future](#). *New Media & Society*, 20(3), 1103–1122.

This article offers an explanation of the evolution of the EU Kids Online model, to show how, building on theory, evidence and policy developments over the past decade, the different factors that shape children's wellbeing in a digital world interrelate and influence outcomes.

 **Lundy, L. (2014).** [United Nations Convention on the Rights of the Child and Child Well-Being](#). In A. Ben-Arieh, F. Casas, I. Frønes & J.E. Korbin (eds) [Handbook of Child Well-Being: Theories, Methods and Policies in Global Perspective](#) (pp. 2439–2462). Springer.

Lundy considers the concept of child wellbeing through the disciplinary lens of human rights, with a particular focus on children's rights as set out in the United Nations Convention on the Rights of the Child.

 **Orben, A., Dienlin, T. & Przybylski, A.K. (2019).** [Social media's enduring effect on adolescent life satisfaction](#). *Proceedings of the National Academy of Sciences*, 116(21), 10226–10228.

This article looks at social media and adolescent life satisfaction. Based on large-scale representative panel data, social media use is not a strong predictor of life satisfaction across the adolescent population. Rather, social media effects were found to be nuanced, small at best, reciprocal over time, gender-specific, and contingent on analytic methods.

 **Rozgonjuk, D., Saal, K. & Täht, K. (2018).** [Problematic smartphone use, deep and surface approaches to learning, and social media use in lectures](#). *International Journal of Environmental Research and Public Health*, 15(1), 92.

This article considers problematic smartphone use (PSU), contributing to the ongoing debate on excessive engagement in smartphone use, and proposes and operationalises the concept of PSU. The study demonstrates the relationship between PSU, as well as the frequency of social media use and different approaches to learning.

 **Street, M. (2021).** [Theorising child well-being: Towards a framework for analysing early childhood education policy in England.](#) *Journal of Early Childhood Research*, 19(2), 211–224.

Street proposes a theoretical framework for children’s wellbeing, and further elucidates its application as an analytic tool.

Swist, T. & Collin, P. (2017). [Platforms, data and children’s rights: Introducing a ‘networked capability approach’.](#) *New Media & Society*, 19(5), 671–685.

Swist and Collin develop an approach to children’s wellbeing that builds on Sen’s capability approach, and take it into the digital age. On the one hand, this means that wellbeing is conceptualised not as an individual property but in terms of the perspective and needs of individuals in context, and as part of a community. On the other hand, now that contexts and communities extend into digital networks, this has implications for how we understand wellbeing and its influences.

 **Sziron, M. & Hildt, E. (2018).** [Digital media, the right to an open future, and children 0–5.](#) *Frontiers in Psychology*, 9, 2137.

There is a need to develop an adequate framework for digital media use and investigate the benefits, risks and implications of digital media use in very young children. This article contributes to this development, focusing on the social and ethical implications of digital media technology relating to children aged 0–5.

 **Thapar, A., Stewart-Brown, S. and Harold, G.T. (2021).** [What has happened to children’s wellbeing in the UK?](#) *Lancet Psychiatry*, 8(1), 5–6.

This article explores the positive effects of green space on the wellbeing of children aged 4 from different ethnic groups. The findings suggest that satisfaction with green space, rather than the amount of space, has a positive effect on wellbeing. There are differences based on ethnicity.

Twigg, L., Duncan, C. & Weich, S. (2020). [Is social media use associated with children’s well-being? Results from the UK Household Longitudinal Study.](#) *Journal of Adolescence*, 80, 73–83.

To explore social media and children’s wellbeing, children aged 10–15 from 7 waves of the UK Household Longitudinal Study were examined (n = 7596). It was found that moderate use of social media does not play an important role in shaping children’s life satisfaction. Higher levels of use is associated with lower levels of happiness, especially for girls, but more research is needed.

 **Vallerand, R.J., Blanchard, C., Mageau, G., Koestner, R., Ratelle, C., Léonard, M., Gagné, M. & Marsolais, J. (2003).** [Les passions de l’âme: On obsessive and harmonious passion.](#) *Journal of Personality and Social Psychology*, 85, 756–767.

This article discusses internet addiction/dysfunctional use of the internet – an obsessive passion that is perceived as being out of control. This concept should be more clearly communicated because it is

more often a symptom of a mental health or family problems and less often a centre of the problems.

 **Weinstein, E. (2018).** [The social media see-saw: Positive and negative influences on adolescents' affective well-being.](#) *New Media & Society*, 20(10), 3597–3623.

This article discusses social media and effects in US teens. The relationship between social technology usage and wellbeing was not found to be confined to an 'either/or' framework. Rather, the emotional see-saw of social media use appears to be weighted by both positive and negative influences.

 **Widyanto, L. & Griffiths, M. (2006).** ['Internet addiction': A critical review.](#) *International Journal of Mental Health Addiction*, 4, 31–51.

Widyanto and Griffiths explore excessive internet and smartphone use, mapping five main areas that are presented in empirical research on excessive use. They discuss the existence of 'internet addiction'.

8. SOCIAL MEDIATION AND SUPPORT

The socialising agents that support and mediate children's digital experiences and outcomes can be theorised in multiple ways. Most research focuses on the role of parents and the family, with theories of parental mediation commonly drawn on in positioning the child, and their digital activities, in an interpersonal context. However, the nature and role of the family, particularly parents, can be contentious, and these can be debated in terms of their description, normative expectations (and critiques thereof) and their historical and cultural specificities and shaping.

Receiving less attention, but also important, are efforts to theorise the importance of peer and community mediation for children's digital engagement. A distinct and sizeable research literature addresses the role of school, although this is little represented here.

Beck-Gernsheim, E. (1998). [On the way to a post-familial family from a community of need to elective affinities.](#) *Theory, Culture & Society*, 15(3-4), 53–70.

Beck-Gernsheim describes the 'post-familial family' – painful experiences and the hopes of the family in late modernity in the West, where reflexivity, risk and individualisation have reconfigured the possibilities, pressures and burdens of the family.

Baumrind, D. (1971). [Current patterns of parental authority.](#) *Developmental Psychology*, 4(1), 1–103.

This is the classic analysis of parental mediation, often since applied to parental mediation of television, the internet and other media, but originally developed as a characterisation of diverse family relations. Baumrind analyses parenting in terms of independent dimensions of authority (or control) or warmth, famously demonstrating that authoritative (control and warmth) parenting

results in better family relationships and outcomes for children than authoritarian (control but no warmth) relationships.

Beck, U. (1997). [Democratization of the family](#). *Childhood*, 4(2), 151–168.

Beck looks at changes in personal and family life – youth as a ‘form and avant garde of one’s own life’ (p. 161). Children have received new rights to a self-determined life, and states serve as advocates of children.

Beck, U. & Beck-Gernsheim, E. (1995). [The Normal Chaos of Love](#). Polity Press.

This book describes important transformations in intimacy and personal life in post-modern societies, and how children take a new role within family life. It explores individualisation, free choice and a greater focus on love.

 **Beyens, P. Valkenburg, M. and Piotrowski, J.T. (2019).** [Developmental trajectories of parental mediation across early and middle childhood](#). *Human Communication Research*, 45(2), 226–250.

This article reviews research on parental mediation to theorise how and why it varies across the developmental trajectory of childhood.

Clark, L.S. (2011). [Parental mediation theory for the digital age](#). *Communication Theory*, 21(4), 323–343.

This article reviews parental mediation theory, proposing an approach that goes beyond positivistic and linear approaches, accounting for the emotional labour that managing children’s media use causes, as well as the reciprocal asymmetry in the parent–child relationship, going beyond the digital native/immigrant dichotomy.

Epstein, J.L. (2010). [School/family/community partnerships: Caring for the children we share](#). *Phi Delta Kappan*, 92(3), 81–96.

This article discusses (although not in the context of children online) six different types of school–family–community partnership models for caring for children. This is highly cited work on the different partnership models between school and homes when caring for children. It would also be helpful to understand these models of involvement when considering how to address challenges towards children’s online safety, privacy and security.

 **Friedman, A. (2016).** [Three-year-old photographers: Educational mediation as a basis for visual literacy via digital photography in early childhood](#). *Journal of Media Literacy Education*, 8(1), 15–31.

This study responds to an ever-changing digital environment by suggesting that parental mediation theory be redefined. Friedman brings into discussion the fields of media literacy and parental mediation.

Giddens, A. (1984). [The Constitution of Society: Outline of the Theory of Structuration](#). Polity Press, in association with Basil Blackwell.

Giddens' wide-ranging and influential sociological theory introduces the concepts of structure and agency, and their dynamic interdependencies (theorised as 'structuration'). Albeit without a direct focus on childhood, it is insightful for its understanding the relationships between social institutions and people's (including children's) agency in determining their daily lives and life outcomes.

Gittlins, D. (1993). *[The Family in Question: Changing Households and Familiar Ideologies](#)*. Macmillan.

With rising illegitimacy and the moral panic over child sexual abuse, Gittlins describes the family as more of a political issue than ever. The book discusses if it is 'the family' that is in crisis, or the subject of family ideology.

Goodman, I.R. (1983). *[Television's role in family interaction: A family systems perspective](#)*. *Journal of Family Issues*, 4(2), 405–424.

This article is a still-insightful account of the psychodynamics of family systems, to explain the processes of meaning-making, identity, relationships and power within the family and within the home.

Hobson, B. (ed.) (2002). *[Making Men into Fathers: Men, Masculinities and the Social Politics of Fatherhood](#)*. Cambridge University Press.

Hobson discusses cross-country differences of welfare regimes, the cash and care facets of fatherhood, child support and custody, parental leave and masculinities. He theorises fatherhood (as ideology), conditions for fathering (as practice) and experiences of fathers (as individuals).

Hoover, S., Clark, L.S. & Alters, D. (2004). *[Media, Home and Family](#)*. Routledge.

The book presents the process of developing a theory of media, home and family based on constructivist methods, followed by a characterisation of the US context and five case studies.

 **Iqbal, S., Zakar, R. & Fischer, F. (2021).** *[Extended theoretical framework of parental internet mediation: Use of multiple theoretical stances for understanding socio-ecological predictors](#)*. *Frontiers in Psychology*, 12, 620838.

This article is useful for its review of the core theorists of parental mediation. The authors subsequently propose an extended framework of socio-ecological predictors concerning parental internet mediation.

James, A. (ed.) (2013). *[Socialising Children](#)*. Palgrave Macmillan.

From the perspective of the new sociology of childhood, James offers a socio-cultural account of childhood socialisation that focuses on culture, power and inequality in family relations and outcomes.

Jensen, A.-M. (2011). *[Pluralization of Family Forms](#)*. In J. Qvortrup, W.A. Corsaro & M.-S. Honig (eds) *The Palgrave Handbook of Childhood Studies* (pp. 140–155). Palgrave Macmillan.

Jensen outlines a host of new family forms, as opposed to the married child-bearing couple, and how this affects children. Children (and marriage) no longer bring social prestige, hence they are postponed.

 Kalmus, V. (2012). [Making Sense of the Social Mediation of Children's Internet Use: Perspectives for Interdisciplinary and Cross-Cultural Research](#). In C.W. Wijnen, S. Trültzsch & C. Ortner (eds) *Medienwelten im Wandel: Kommunikationswissenschaftliche Positionen, Perspektiven und Konsequenzen. Festschrift für Ingrid Paus-Hasebrink* (pp. 137–149). Springer.

This theoretically oriented chapter conceptualises social mediation by suggesting a typology of the roles of the agents of socialisation as mediators. It then outlines some methodological considerations, and sketches possible perspectives for further interdisciplinary research.

 Kalmus, V. & Roosalu, T. (2012). [Institutional Filters on Children's Internet Use: An Additional Explanation of Cross-National Differences in Parental Mediation](#). In M. Walrave, W. Heirman, S. Mels, C. Timmerman & H. Vandebosch (eds) *e-Youth: Balancing between Opportunities and Risks* (pp. 235–250). Peter Lang.

This analysis highlights the importance of macro-level factors (such as welfare regimes and gender ideologies) in explaining cross-cultural differences in parental mediation.

 Lauricella, A.R., Cingel, D.P., Beaudoin-Ryan, L., Robb, M.B., Saphir, M. & Wartella, E.A. (2016). [The Common Sense Census: Plugged-in Parents of Tweens and Teens](#). Common Sense Media.

This contribution is based on focus groups and nationally representative survey data, and differentiates between parental mediation, parental monitoring and parental management, reporting on findings focusing on these three areas of social mediation.

 Lee, E., Bristow, J., Faircloth, C. & Macvarish, J. (2014). [Parenting Culture Studies](#). Palgrave Macmillan.

This edited volume offers a contemporary account from a critical social science perspective of 'parenting' and 'parenting culture'. While attentive to empirical research and the voices of parents, the contributors' critical analysis recognises that parenting is subject to powerful moral and media panics, generating parenting and public anxiety, and compounding the problems that parents face in their daily lives.

 Lim, S.S. (2018). [Transcendent Parenting in Digitally Connected Families: When the Technological Meets the Social](#). In G. Mascheroni, C. Ponte & A. Jorge (eds) *Digital Parenting: The Challenges for Families in the Digital Age* (pp 31–39). Nordicom.

Lim talks about transcendent parenting as a new type of parenting. A transcendent parent is someone who is always online, who remains connected to his/her child even when apart. This trend is supported by various digital tools the parents can utilise in their parenting routines (for example, location-tracking apps and online parenting groups).

 Livingstone, S. & Bober, M. (2013). [Regulating the Internet at Home: Contrasting the Perspectives of Children and Parents](#). In D. Buckingham & R. Willett (eds) *Digital Generations* (pp. 105–126). Routledge.

This chapter discusses ‘parental strategies of domestic regulation’ of children’s internet access from the results of the UK Children Go Online project. It presents parental perspectives towards regulating, and monitoring, children’s internet use.

 **Mascheroni, G., Ponte, C. & Jorge, A. (2018). [Introduction](#). In G. Mascheroni, C. Ponte & A. Jorge (eds) *Digital Parenting: The Challenges for Families in the Digital Age* (pp. 9–16). Nordicom.**

This chapter introduces the concept of digital parenting, which refers to various relationships the parents have with digital technologies in the context of child rearing. On the one hand, the idea involves various practices the parents have adopted to mediate their children’s media use, and on the other, it refers to the ways the parents themselves use digital technologies in their daily lives and in being a parent.

 **Mendoza, K. (2013). [Surveying parental mediation: Connections, challenges and questions for media literacy](#). *Journal of Media Literacy Education*, 1(1), 28–41.**

This is another article that provides an overview of parental mediation theory and practice, in order to present new questions for the field of media literacy.

Morgan, D. (1999). [Risk and Family Practices: Accounting for Change and Fluidity in Family Life](#). In E. Silva & C. Smart (eds) *The New Family* (pp. 13–30). SAGE Publications.

This chapter looks at changes in family life – family as based on practices and something that can be chosen rather than granted. It talks about ‘doing family’ as a way of describing diversity within family forms.

 **Schofield Clark, L. & Brites, M.J. (2018). [Differing Parental Approaches to Cultivating Youth Citizenship](#). In G. Mascheroni, C. Ponte & A. Jorge (eds) *Digital Parenting: The Challenges for Families in the Digital Age* (pp. 81–89). Nordicom.**

In this chapter, the authors reflect on how parents and their children negotiate their digital responsibilities and rights during the adolescent years in light of their expectations regarding agentive involvement in life decision-making. It highlights the stories of families who embrace a commitment to social justice, and who therefore view the digital activities of their children and youth as a question of whether or not these activities support the family’s broader commitments to social justice and active civic engagement. The authors argue that young people may come to view practices of citizenship as an extension of their online and offline experience of agency within their home contexts.

Siibak, A. (2019). [Digital Parenting and the Datafied Child](#). In T. Burns & F. Gottschalk (eds) *Educating 21st Century Children: Emotional Well-Being in the Digital Age* (pp. 103–118). OECD Publishing.

Siibak considers ‘intimate dataveillance’, a term that refers to the use of tracking apps and devices. As there are so many new risks children may face in their online and offline encounters, parents have increasingly started to make use of various technological devices, mobile applications or parental controls (for example, content filtering software, internet blockers and add-on monitoring software) for monitoring children’s whereabouts, both in the online and offline worlds.

Stephen, C., Stevenson, O. & Adey, C. (2013). [Young children engaging with technologies at home: The influence of family context.](#) *Journal of Early Childhood Research*, 11, 149–164.

The authors examine dimensions of the home environment that influence a child's digital experience; influencing dimensions of the home environment (especially parental attitudes) may be the way towards healthier experience and use of digital devices.

 Wartella, E.A. & Jennings, N. (2000). [Children and computers: New technology – old concerns.](#) *The Future of Children*, 10(2), 31-43.

This article reports on historical trends in social concerns about the disruptive effects of media use and how society and policy/regulations have always put particular emphasis on parents, leaving them with the burden of socialising and educating their children to a socially acceptable use of technology.

Wells, K. (2015). [Childhood in a Global Perspective](#) (2nd edn). Polity Press.

Children's lives throughout the world are the focus of this book. Wells shows how the notion of childhood is being radically reshaped, in part as a consequence of globalisation. The book tackles issues such as children's rights, the family, children and war, child labour, migration, trafficking, the role of play, and young people's activism around the globe.

9. POLICY AND REGULATION

The field of research on policy and regulation covers a wide range of substantive topics (such as platform regulation, content moderation or data protection). It has also developed its own theories, concepts and debates to address these topics and to critically examine the rationale for intervention or policy change. In relation to children, such concepts tend to concern child rights, equity and inequality, children's agency, voice and activism, and child protection.

In relation to the digital environment, much debate centres on the varieties of regulation – self-regulation, co-regulation, legislation – and on actions available to organisations – the state, international bodies, civil society organisations, the business sector and others.

 Broughton Micova, S. & Jacques, S. (2020). [Platform power in the video advertising ecosystem.](#) *Internet Policy Review*, 9(4).

The authors propose a framework that operationalises the concept of platform power using a theory of harm and wellbeing to define the audiovisual advertising ecosystem.

 Brown, I. & Marsden, C.T. (2013). [Regulating Code: Good Governance and Better Regulation in the Information Age.](#) The MIT Press.

This is an important text introducing the key debates in technology regulation. While this is a fast-changing area, this is a very solid foundation for the law/policy-oriented scholar.

 Bulger, M., Burton, P., O'Neill, B. & Staksrud, E. (2017). [Where policy and practice collide: Comparing United States, South African and European Union approaches to protecting children online](#). *New Media & Society*, 19(5), 750–764.

This is an interesting piece for two main reasons: first, it accounts for protection policies in both the Global North and the Global South. Then it questions the 'innocent-child-in-need-of-protection' framework informing many policies on children online, highlighting dilemmas of policies and practices.

 Ciboci, L., Kanižaj, I. and Labaš, D. (2013). [The efficiency of regulation and self-regulation: Croatian media's protection of children's rights \(2008–2012\)](#). *Časopis za upravljanje komuniciranjem/Communication Management Quarterly*, VII(29), 147–170.

A detailed analysis of the role of regulators in protecting children's rights in electronic media.

 Ciboci, L., Kanižaj, I. and Labaš, D. (2015). [Public Opinion Research as a Prerequisite for Media Education Strategies and Policies](#). In S. Kotilainen & R. Kupiainen (eds) *Reflections on Media Education Futures* (pp. 171–182). Nordicom.

This is an example of how public opinion research can help build new policies and initiate new projects at member state level. It argues in favour of improved coordination, new educational programmes and better cooperation among the relevant institutions.

 Dulong de Rosnay, M. & Stalder, F. (2020). [Digital commons](#). *Internet Policy Review*, 9(4).

This article discusses the principles and historical development of 'digital commons', where the resources are data, information, culture and knowledge that are created and/or maintained online.

 European Audiovisual Observatory (2016). [Mapping of Media Literacy Practices and Actions in EU-28](#). European Audiovisual Observatory.

This report provides an overview of media literacy projects in several European countries and lessons learned about media literacy education based on case studies.

Frau-Meigs, D., Velez, I. & Michel, J.F. (2017). [Public Policies in Media and Information Literacy in Europe : Cross-Country Comparisons](#). Routledge.

This book takes a long-term perspective of the development of media education in Europe, and includes an appraisal of media, information, computer and digital literacies as they coalesce and diverge in the public debate over 21st-century skills.

 Gillespie, T., Aufderheide, P., Carmi, E., Gerrard, Y. Gorwa, R., Matamoros-Fernández, A., Roberts, S.T., Sinnreich, A. & Myers West, S. (2020). [Expanding the debate about content moderation: Scholarly research agendas for the coming policy debates](#). *Internet Policy Review*, 9(4).

This article proposes the reconceptualisation of content moderation, recognising it as an expansive socio-technical phenomenon that functions in many contexts and takes many forms. It highlights policy implications.

 Hestres, L., Rochman, A., Volmert, A. & Busso, D. (2021). [How Are Advocates Talking About Children's Issues? An Analysis of Field Communications](#). Frame works.

This report discusses the frames and narratives that organisations in the field of children's advocacy use to discuss children's issues, and suggests how new framing and a narrative strategy can be developed to mobilise children's rights.

Lievens, E. (2010). [Protecting Children in the Digital Era: The Use of Alternative Regulatory Instruments](#). Martinus Nijhoff Publishers.

This book provides a valuable discussion of co-regulatory approaches, as well as an in-depth legal analysis of the alternative regulatory instruments that can be used to regulate content in the digital era, with particular attention to the protection of fundamental rights, such as freedom of expression, privacy and procedural guarantees, internal market regulation, competition rules and implementation requirements.

Lievens, E. (2016). [Is Self-Regulation Failing Children and Young People? Assessing the Use of Alternative Regulatory Instruments in the Area of Social Networks](#). In S. Simpson, M. Puppis & H. van den Bulck (eds) *European Media Policy for the Twenty-First Century* (pp. 89–106). Routledge.

This chapter provides a good overview of self-regulatory approaches and some of their shortcomings as well as the various alternative regulatory instruments.

Lievens, E. & van der Hof, S. (2017). [Protection of Children under the GDPR: How to Achieve Meaningful Control over Personal Data by Parents and Children?](#) Presented at the Children and Digital Rights: Regulating Freedoms and Safeguards.

This paper provides the context for enforcing Article 8 of the GDPR in the context of children's rights, and discusses the issue of meaningful consent under this regulatory framework. It is a very useful read in the context of children's privacy online

 Livingstone, S. (2016). [Reframing media effects in terms of children's rights in the digital age](#). *Journal of Children and Media*, 10(1), 4–12.

This article is essential for researchers who are considering whether to frame their work in terms of effects or rights. Livingstone compares these frameworks with regard to the conception of children and media, assumptions, methodologies and evidence-based policy.

 Livingstone, S. & O'Neill, B. (2014). [Children's Rights Online: Challenges, Dilemmas and Emerging Directions](#). In S. van der Hof, B. van den Berg & B. Schermer (eds) *Minding Minors Wandering the Web: Regulating Online Child Safety* (pp. 19–38). TMC Asser Press.

This chapter examines how the United Nations Convention on the Rights of the Child is helpful in mapping children's rights to provision, protection and participation as they apply online as well as offline. It discusses challenges at the policy level and their implementation for children online/offline using data from the EU Kids Online project.

 Lundy, L. (2019). [A lexicon for research on international children's rights in troubled times](#). *The International Journal of Children's Rights*, 27(4), 595–601.

Lundy provides a critical analysis of the lack of engagement and recognition of children's rights discourse in relation to protection, participation and wellbeing.

 Macenaite, M. & Kosta, E. (2017). [Consent for processing children's personal data in the EU: Following in US footsteps?](#) *Information & Communications Technology Law*, 26(2), 146–197.

This article assesses the provisions of GDPR as it relates to children. Drawing on COPPA in the US, the authors identify pitfalls to consider when moving forward in the implementation of the EU parental consent requirement.

Milosevic, T. (2018). [Protecting Children Online? Cyberbullying Policies of Social Media Companies.](#) The MIT Press.

This book provides a critical overview and evaluation of social companies' policies designed to fight cyberbullying (a largely understudied aspect of the topic), together with an overview and analysis of self-regulatory, co-regulatory and traditional approaches to regulation of bullying on social media platforms. Policy recommendations are provided in the context of balancing children's rights to protection and participation.

Montgomery, K.C. (2015). [Youth and surveillance in the Facebook era: Policy interventions and social implications.](#) *Telecommunications Policy*, 39(9), 771–786.

This article provides an overview of the policy implications of data collection taking place on social media as well as an understanding of the process and methods and shortcomings of current regulation.

 O'Neill, B., Staksrud, E. & McLaughlin, S. (2013). [Towards a Better Internet for Children? Policy Pillars, Players and Paradoxes.](#) Nordicom/UNESCO Clearinghouse for Children and Media.

This book provides an overview of policy-making for online safety in a European context. It is organised around the main pillars that have defined the EU response, with particular reference to the Safer Internet Programme (2000–12) that features education, awareness-raising and a hybrid approach in self- and co-regulation as its main anchors. A number of chapters focus on the emerging consideration of children rights in a digital context.

Savirimuthu, J. (2012). [Online Child Safety: Law, Technology and Governance.](#) Palgrave Macmillan.

This is a very good survey of the policy field with a particular focus on regulatory and governance issues. It is a good introduction to the principles of law and internet governance.

Staksrud, E. (2016). [Children in the Online World: Risk, Regulation, Rights.](#) Routledge.

Staksrud provides a critical analysis of the policy approaches to child online safety in the European Union, applying Beck's institutionalised individualisation theory in the context of children's rights.

Third, A. & Collin, P. (2016). [Rethinking \(Children's and Young People's\) Citizenship Through Dialogues on Digital Practice.](#) In A. McCosker, S. Vivienne & A. Johns (eds) *Negotiating Digital Citizenship: Control, Contest and Culture* (pp. 41–59). Rowman & Littlefield Int.

This calls for a rethinking of what digital citizenship means in the context of children's rights. It provides a very different agency-driven conceptualisation from dominant takes on digital citizenship.

Third, A., Collin, P., Walsh, L. & Black, R. (2019). *[Control Shift: Young People in Digital Society](#)*. Palgrave Macmillan.

This book advocates children and young people's rights in the digital environment by focusing on the intergenerational tensions that shape and limit their opportunities. In particular, the adult society that has the power to influence young people's outcomes is critically examined for its anxieties, near-exclusive focus on risk and safety, and its persistent misunderstanding of the perspectives of young people. The authors call for a move away from efforts to 'control' young people's digital engagement and for greater intergenerational understanding.

 **UNESCO (2005).** *[The Precautionary Principle](#)*. United Nations Educational.

This book explains the nature and value of the precautionary principle in guiding policy and regulation, especially at times of rapid change or in cases where evidence is insufficient or contested.

 **van Audenhove, L., Vanwynsberghe, H. & Mariën, I. (2018).** *[Media literacy policy in Flanders – Belgium: From parliamentary discussions to public policy](#)*. *Journal of Media Literacy Education*, 10(1), 59–81.

This article presents a theoretical overview of three trends in media literacy debates, with specific application to Flanders' policy formulation.

 **White, D. (2020).** *[Digital inclusion and well-being](#)*. *Internet Policy Review*, 9(2).

White discusses the relationship between digital inclusion and different aspects of wellbeing and how these have informed the work of the Carnegie Trust UK.

10. WHAT IS THEORY AND HOW TO DEVELOP THEORY

This section offers methodological and conceptual guidance on theory – what is theory, approaches to developing theory, key challenges in theorising and how to overcome them.

 **Banaji, S. (2016)** [Global Research on Children's Online Experiences: Addressing Diversities and Inequalities](#). Global Kids Online.

Banaji explores existing inequalities between research and theory from the Global North and the Global South, and criticises the processes of power and privilege that underpin the research process.

 **Dankasa, J. (2015)**. [Developing a theory in academic research: A review of experts' advice](#). *Journal of Information Science Theory and Practice*, 3(3), 64–74.

Clearly articulating new theories from research remains a challenge. Dankasa explains the concept of a theory and the different components that make up a theory, and offers suggestion as to what makes a good theory based on collated advice from scholars.

 **Dawes, S. (2017)**. [What is media theory?](#) *Media Theory*, 1(1), 1–17.

Setting out the aims of the newly established *Media Theory* journal, Dawes argues that the theorisation of 'media' needs to consider its different forms and boundaries, as well as the boundaries of 'media theory'.

 **Donsbach, W. (2006)**. [The identity of communication research](#). *Journal of Communication*, 56(3), 437–448.

Donsbach argues that scholars are limited in their ability to keep an overview of their disciplines as the field grows much faster than any scholar could process, hence the difficulty in offering a synopsis or claiming novelty. Furthermore, the scope of any such claims carries a bias.

 **Fazi, M.B. (2017)**. [The ends of media theory](#). *Media Theory*, 1(1), 107–121.

Fazi discusses what 'theory' might mean in relation to media and media studies, offering reflections on the role of theory in general, and on the role of media theory specifically, showing its continued relevance.

 **Forsyth, P. (2018)**. ['What theory is not' revisited](#). *Journal of Research on Organization in Education*, 2, v–x.

This article provides guidance on how to link theory and evidence.

 **Glynn, K. (2020)**. [Critical Media Theory](#). Oxford Bibliographies. doi:10.1093/obo/9780199791286-0333.

Glynn provides a brief discussion of the origins and historical development of critical media theory, as well as its key schools of thought and theorists.

 **Gottfried, P.N. (2016)**. [Faculty Mentor Insights on Dissertation Literature Reviews: Critical Components and Professional Practices for Scholarship](#). ProQuest Dissertations & Theses Global.

This is a discussion of how academic mentors guide their doctoral students in creating the conceptual and theoretical framework for their dissertations.

 Harrington, A. (2011). [Social Theory](#). Oxford Bibliographies. doi:10.1093/obo/9780199756384-0054.

This provides a brief introduction to social theory, its scope, key concerns and classical theorists.

 Holmström, J. (2005). [Theorizing in IS research: What came before and what comes next?](#) *Scandinavian Journal of Information Systems*, 17(1), 167–174.

This article offers a discussion of how to update existing theories and handle theoretical contradictions.

 Home, R. (2017). [Going south and engaging non-Western modernities](#). *Media Theory*, 1(1), 65–73.

This article points to the importance of understanding the complex contexts of the Global South and how they demand rethinking theories based on the Global North, but also what counts as media or media relations.

 Leeds-Hurwitz, W. (2012). [These fictions we call disciplines](#). *Electronic Journal of Communication/La Revue Electronique de Communication*, 22(3–4).

This article argues that academic disciplines are social constructions – shaped by the scholars and shaping scholars back. It explores how disciplines have become taken for granted, and argues that conceptualising disciplinary boundaries as fluid can enhance our thinking, and that the juxtaposition of ideas or tools from different domains encourages new ideas.

 Leeds-Hurwitz, W. (2021). [The role of theory groups in the lives of ideas](#). *History of Media Studies*, 1 (October).

This article offers a discussion of how theory groups can facilitate the development of ideas, and multidisciplinary approaches and help create joint understandings around key ideas.

 Manghani, S. (2017). [Open theory](#). *Media Theory*, 1(1), 162–167.

This article offers a playful guide on how to create theory, and on the processes of thinking, situating and writing, and making that happen as part of theorising.

 [Media Theory](#) (2017), 1(1).

This issue offers a good theoretical overview of classical and new media theories. Other issues of the same open access journal might also be of interest.

 Miller, D. (2021). [A theory of a theory of the smartphone](#). *International Journal of Cultural Studies*, 24(5), 860–876.

Miller criticises the practices of elitism and exclusion behind theorising, and proposes a ‘de-fetishised’ theory via an example of theorising the smartphone.

 Mitchell, W.J.T. (2017). [Counting media: Some rules of thumb](#). *Media Theory*, 1(1), 12–16.

Mitchell offers a discussion of what media theory is and how to theorise it. He suggests that media needs to be theorised according to several reference frameworks, including image/music/text (drawing on the work of Barthes), a model of communication, medium, time and pace.

 Munger, K., Guess, A.M. & Hargittai, E. (2021). [Quantitative description of digital media: A modest proposal to disrupt academic publishing](#). *Journal of Quantitative Description: Digital Media*, 1.

As an introduction to the rationale for this new journal, this article criticises existing research that tends to reflect mainly dominant theories and conventional wisdom.

 Park, D.W., Pooley, J. & Simonson, P. (2021). [History of media studies, in the plural](#). *History of Media Studies*, 1.

This editorial introduction discusses the historical development of media studies and the concept of 'media', and argues for decentring knowledge-making.

 Raetzsch, C. (2017). [10 propositions for doing media theory \(again\)](#). *Media Theory*, 1(1), 179–186.

In this article, Raetzsch interrogates how digital media shape our perceptions, and questions what is commonly understood. The text offers 10 propositions on how to understand and do media theory, including that media theory is transnational, interdisciplinary and applied, and has a context, motivation and position.

 Rivard, S. (2021). [Theory building is neither an art nor a science. It is a craft](#). *Journal of Information Technology*, 36(3), 316–328.

Rivard argues that researchers mistakenly hold the romantic view that theory is the result of a deductive process and should be flawless, while the outcomes of theorising are, in fact, often incomplete and require perseverance. Rivard offers a spiral model of theory building and proposes design principles.

 Sutton, R.I. & Staw, B.M. (1995). [What theory is not](#). *Administrative Science Quarterly*, 40(3), 371–384.

This article discusses the importance of theory for social science and identifies several principles of what theory is not in an attempt to create guidance on how to create theory. [See also DiMaggio, P.J. (1995). [Comments on 'What theory is not.'](#) *Administrative Science Quarterly*, 40(3), 391–397.]

 Swedberg, R. (2012). [Theorizing in sociology and social science: Turning to the context of discovery](#). *Theory and Society*, 41, 1–40.

This article proposes a general structure of theorising that relies on exploring empirical evidence, creativity and (again) iteration. The basic steps of this model include observation, conceptualising and developing an early-stage theory with tentative explanations, and justification that puts the tentative theory to the test.

 Weick, K.E. (1995). What theory is not, theorizing is. *Administrative Science Quarterly*, 40(3), 385–390.

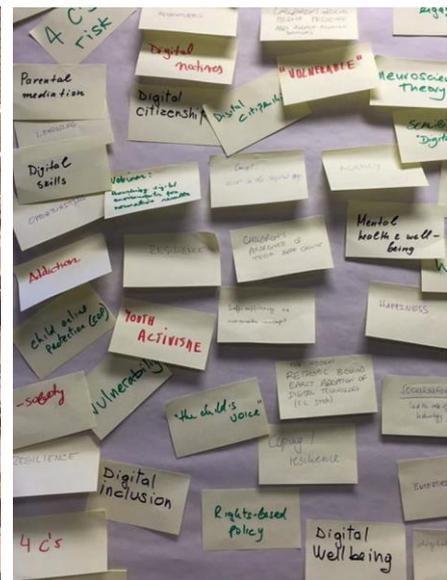
This article is a discussion of what theory is and its characteristics, including good and weak theorising.

11. DEVELOPING THE ANNOTATED BIBLIOGRAPHY

This annotated bibliography was developed as part of an EC-funded project CO:RE – Children Online: Research and Evidence within Work Package 5 on theory. In the CO:RE project, Work Package 5 is building a theory toolkit for European researchers and research users concerned with children’s experiences online and in a digital world.

We began by asking members of the CO:RE network, in a workshop-style group discussion, to identify the concepts central to research and evidence regarding children’s digital lives.

Expert consultation meeting, January 2020



We arranged and systematised the concepts that they suggested to identify key conceptual areas. These key areas of children’s digital lives were reviewed during follow-up project meetings, and expanded and defined, resulting in nine final key areas (see diagram at the beginning of the bibliography). Next, we organised an online consultation inviting members of the CO:RE network and selected experts on children’s internet use from different subfields to map relevant theories, concepts and disciplines, and to identify priorities and resources in each of the nine areas. The results were organised and summarised in this annotated bibliography.

We thank the experts who contributed to the consultation and helped us create this resource.

This annotated bibliography is designed to answer these questions:

- If someone was beginning research on X (say, wellbeing or risk) in relation to children online, what must they read? What theories or approaches might they find particularly promising?
- What sources have CO:RE members themselves found insightful in guiding their thinking on key concepts? And why? Do they raise interesting new research questions?

This resource is not intended to work as a library, nor to dictate any ‘correct’ or ‘ideal’ way to research children online. We offer a road map to get started, and some interesting directions to pursue.

The consultation for developing the bibliography followed a snow-balling process – we first approached members of the CO:RE consortium who shared their ideas about the key concepts, theories and resources, and identified gaps and priorities. We then consulted members of the largest European network working on children’s use of digital technologies – EU Kids Online, with members in 34 countries across Europe – who made further suggestions. We used an online forum to invite recommendations from the Children, Youth and Media network at the European Communication Research and Education Association, a Europe-wide network for researchers and educators. We also invited its members to suggest ways in which the output from the consultation – the annotated bibliography – could be utilised and who might benefit from it. Finally, we made the bibliography available online as a shared working document, and shared on social media an invitation for contributions. Each week we shared a different concept and a link where people could add their suggestions.

After that the bibliography was maintained as an ‘open document’ and work in progress over the duration of the project, allowing it to continue to change as we debated the contents and added new sources.