Grown up?
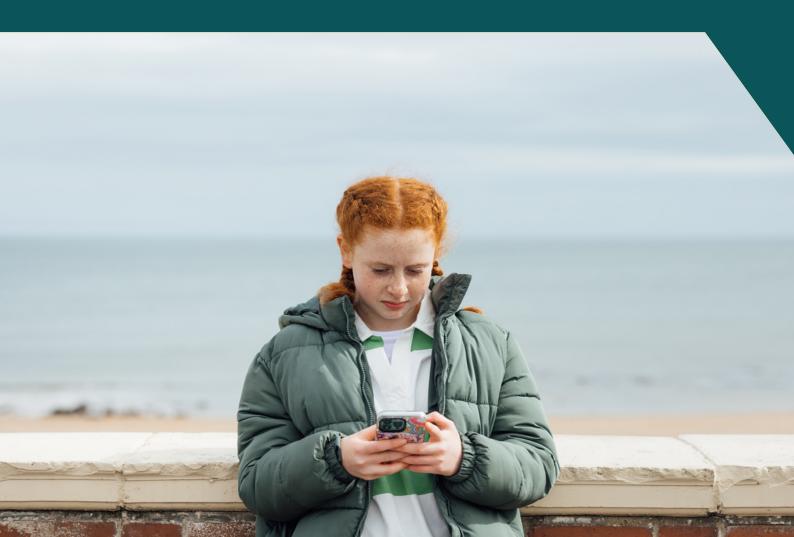
Social thinning in a digital age:

The case for rebuilding the social foundations of adolescence

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Grown up?

Contents

Introduction: Rethinking adolescence in the 21st century

In the last decade, public and policy narratives have converged around the notion of a youth mental health crisis. Rates of anxiety, depression, self-harm and loneliness have risen, particularly among teenage girls. Between 2014 and 2024, the proportion of individuals aged 16–24 experiencing common mental health conditions rose markedly – from 19% to 26%. This increase was especially pronounced among young women, with prevalence reaching 36% compared to 16% among young men[1].

Much of the public discourse has focused on digital technologies as one of the core drivers of these trends. Yet what if this framing risks missing the deeper story? What if we are not simply facing a mental health crisis, but witnessing the consequences of a profound thinning in the real-world social ecology – the social relationships, spaces and infrastructures - that once supported adolescent development? These questions arise at a time when we at Anna Freud, and many others, realise that our focus should increasingly be on preventing rather than treating symptoms, by building the relational, social and community infrastructures that scaffold healthy development.

Adolescence is a time of biological maturation that is deeply linked to core processes of social and cultural learning, identity formation and relational development[2]. Yet the 'real-world' experience that once supported these processes – which at its heart involved trusted relationships, including youth clubs, libraries, face-to-face peer interaction and unstructured play – has steadily declined. For adolescents, such play might include sport, games, creative activities or even 'hanging out'. At the same time, the rise of the internet, smartphones and algorithmic platforms has redrawn the boundaries of social life, creating new pressures and possibilities. A recent report by the Youth Futures Foundation[3] has identified four potential factors behind a decline in adolescent mental health: employment precarity and affordability pressures, declining sleep quality, social media and smartphone use, and reduced children and youth services.

In this expert feature, we argue that the problem is not digital life in isolation, nor a sudden deterioration in adolescent resilience. Rather, it is the hollowing out of the real-world spaces and meaningful relationships with peers and adults that once supported healthy development. Alongside this, we are witnessing a dynamically expanding digital realm filling the vacuum, perhaps due to a mixture of passive replacement and the unique potential and possibilities that digital platforms provide. As a society, we have a duty to ask: what constitutes a good childhood and adolescence in the 21st century? And are we prepared to invest time and money to reimagine and recreate a new and rich social infrastructure in an increasingly digital world – and foster the trusted relationships that underpin it?

Adolescence as a sensitive period of social development

Adolescence is a biologically primed period for social learning. We have known for some time that brain regions linked to social cognition, emotional regulation and reward processing undergo dramatic development during this time[4]. This neuro-cognitive reorganisation is believed to support three key developmental tasks:

- **Identity formation**: building a coherent sense of self through experimentation and feedback and through the experience of being understood, thought about and cared for by others.

- **Social integration**: navigating peer hierarchies, building and cultivating relationships, and learning how to manage rejection and repair ruptures when they arise.

- **Autonomy and agency**: developing skills for independent action and decision-making, with a growing understanding of how we are active agents in shaping our own life story and social world.

Adolescence is a sensitive period for developing the competencies that underpin our ability to navigate these tasks. These competencies include regulating our emotions by ourselves or through interacting with others, making accurate decisions about trusting others, taking others' perspectives and understanding others' intentions (also called mentalising), and balancing between approaching/avoiding new situations, opportunities and people.

Developing these competencies depends not only on innate internal capacities, but on exposure to diverse social environments and the quantity and quality of various social relationships in those environments, from casual acquaintances to long-term trusted friendships. When adolescents are embedded in rich, supportive social ecologies – those that create opportunities to take risks, develop agency and learn about how to navigate different kinds of relationships (and relationship challenges) – they are more likely to develop a strong sense of self and the competencies needed to thrive. But when those ecologies fragment and thin, developmental vulnerabilities can accrue as there are increasingly fewer opportunities for social learning. This reduction in social capital over time may have a range of developmental consequences, not least an increase in the risk of mental health problems.

By social capital, we refer to both external developmental assets (including friendships, shared experiences, intergenerational ties and participation in group life) and internal assets that reside more within the individual (including trust, empathy, emotional regulation, self-efficacy and a sense of belonging)

Social capital is not a fixed entity or the gift of innate traits; it is built through everyday social experience and social opportunities. It is nurtured by regular opportunities to play, explore, argue, recover, be seen and be valued by others, across home, school, community and public life.

A shrinking offline world: The erosion of social infrastructure

Over the past two decades, there has been a period of marked social thinning for young people – a decline in the physical and relational spaces that support social development.

Between 2011 and 2023, England and Wales saw the closure of more than two-thirds (over 1,200) of their council-run youth centres. By 2023, only 581 remained, and 42% of local authorities reported having no council-run provision at all[5]. A recent report also showed that teenagers living in areas affected by youth club closure performed worse in national high-school exams and were more likely to commit crimes[6]. Public libraries, once a key third space for youth interaction, have faced severe cuts, with over 800 (nearly 20%) closed since 2010 in the UK[7]. Meanwhile, parks and open spaces have suffered from underinvestment, and policies such as 'no ball games' signs and restrictions on unsupervised outdoor play have proliferated[8]. According to the YMCA's *Beyond the Brink* report[9], local authority spending on youth services in England fell by 73% in real terms between 2010–11 and 2023–24. That means a staggering £1.2 billion has been stripped from youth service budgets since 2010.

At the same time, there are cultural shifts in parenting styles and societal attitudes that may further the erosion of social capital. While well-intentioned, parental fears about safety and the desire to minimise risks for their children, combined with media-fuelled anxiety, have produced a 'risk-averse' culture often described as 'safetyism'[10]. At the same time, there is rising academic pressure and an emphasis on achievement at the expense of unstructured play and exploration[11]. It is then perhaps not surprising that we are seeing a dramatic decline in unsupervised play and face-to-face peer interaction. The Play Commission and Centre for Young Lives[12] found that children today have significantly less freedom to roam, play outdoors or gather with peers than previous generations, especially those from disadvantaged backgrounds. As we write this article, a new study has just been published indicating that one in three children don't play outdoors after school, while the same research shows that outdoor play positively contributes to social and emotional development[13]. Such development is what helps build the foundations for resilience and the capacities to navigate the inevitable challenges that life brings to all of us.

At the same time, the weakening of community institutions, from religious organisations to neighbourhood networks, has eroded adolescents' exposure to intergenerational relationships and community-based learning. Arguably, all of this has narrowed the environments in which young people can explore, fail safely and develop social mastery.

The rise of a digital world

Into this thinning social ecosystem, digital platforms have entered, not as a developmental tool intentionally designed to replace real-world social ecosystems, but as a default venue for social interaction. Young people now navigate identity, belonging and social status within environments that have primarily been motivated by revenue and monetisation, not by the

desire to support and enhance healthy growth and the development of social and emotional skills.

While it can be appealing to think that digital spaces are inherently harmful, this is not a simple binary issue. Platforms can offer connection, self-expression and community, especially for those marginalised offline. Online interactions with school friends can provide vital support in out-of-school hours. Our online and offline social lives are linked, and online connections can deepen our existing relationships by providing more opportunities for engagement and empathy[14].

Alongside this, online platforms can be used to build new connections one might never otherwise have made. We know that online interactions are different from in-person interactions in several ways, including comprising fewer non-verbal cues, greater anonymity as well as greater reach (by reducing geographical barriers)[15].

However, the platforms where such interactions take place are typically spaces of algorithmic manipulation, social comparison and performative pressure. They can create an obligation to be available to respond instantly to friends, even when one is tired or engaged in other activities or relationships. This means that offline experience can be disrupted by online interaction (for example, online presenteeism driving offline absenteeism in schools[16]). Moreover, adolescent girls are particularly susceptible to image-based social platforms that magnify appearance-driven comparisons – many feel worse about their bodies after curating or viewing idealised, filtered images[17]. Boys, on the other hand, are more deeply immersed in gamified digital spaces where dominance, competition and performance are central, often reinforcing aggressive or individualistic norms[18].

Amy Orben's research offers critical nuance. In a landmark longitudinal study, she and colleagues identified windows of heightened sensitivity to social media in adolescence: ages 11–13 for girls, 14–15 for boys, and around 19 for both sexes[19]. Yet overall effect sizes were surprisingly small given the cultural noise around screen time. Overall, Orben argues that while population-level impacts of social media on well-being are limited, they may conceal profound harms, or benefits, at the individual level[20].

This ambiguity reflects broader methodological limitations that currently restrict what we know about the impact of digital experience on adolescence. Most research is correlational. Experimental studies are rare, and Big Tech platforms remain reluctant to share data. This has led to calls for a precautionary moral stance: to regulate potentially harmful design features not only after damage is proven, but when plausible developmental risks exist.

The effects of an increased amount of time spent online on our brain, behaviours and social relationships are complex and likely multi-faceted. Here, we argue that studying these effects is only half the story; this needs to be considered along with the availability of offline alternatives for young people and how their real-world social ecosystems are undergoing profound change.

In our view, digital life may become problematic when it supplants, rather than complements, embodied social experiences that provide rich and developmentally primed opportunities to learn about oneself, to build a positive and coherent sense of self, and to cultivate the skills

needed to build and maintain relationships with others. When those social experiences are absent, as they increasingly are, screen time becomes a symptom, rather than a cause, of the deeper deprivation of social thinning.

Diverging experiences

It is also important to recognise that some young people may be more vulnerable than others to experiencing poor mental health, social disconnection and loneliness. As we have already noted, girls have seen the steepest increases in anxiety, self-harm and body dissatisfaction.

This gender gap may reflect distinct developmental pathways. Girls tend to be earlier adopters of social media, and more likely to engage in social comparison and internalise distress. Boys, meanwhile, may be at greater risk of social withdrawal into solitary gaming and subcultures with long-term risks for identity and relationship formation[21].

Other evidence shows that education and socio-economic status is also linked to loneliness[22]. These factors may influence one's access to social networks and one's ability to participate in diverse and enriching social activities. They may also entail a felt sense of lower social status, which may influence social comparison and, thereby, social interactions. We also know that experience of childhood adversity and trauma can make it harder to build and maintain relationships with others, and that these early experiences can contribute to social thinning and increased likelihood of stressful interpersonal events[23].

Hence, it could be that some young people are at a 'double disadvantage' – they experience barriers to in-person social interaction and may also be more vulnerable to the negative impacts of social media. As we think about how to support young people navigating a changing social landscape, it is important to recognise that interventions may not be one-size-fits-all. A core challenge is: how do we meet the needs of all young people through tailored, developmentally informed responses that recognise how digital and offline environments intersect with gender, health status, neurodiversity, prior developmental experiences and socio-economic context?

The rise of AI and the future of social simulation

New technologies such as large language models and social AI agents introduce further complexity. Adolescents will increasingly interact with artificial companions, advice bots and emotionally responsive systems. The experience of young people interacting with these agents will, in our view, utterly transform adolescence, and indeed society, in the next decade. These interactions have the potential to offer real support and helpful advice – but there are counter-arguments, such that poorly governed algorithms may be harmful, leading some young people to inappropriately self-diagnose. They risk, in some cases, augmenting patterns of ruminative negative thinking, or indeed suicidal ideation, as existing biases are reinforced rather than

challenged. They also risk replacing rather than complementing real-world relationships with others.

If trust, agency and mentalising are fundamental core mechanisms of adolescent (and indeed human) development, we must ask: what happens when these processes are rehearsed with simulations rather than people? AI (and the algorithms on which it depends) has incredible potential either to enhance or disrupt normative patterns of development depending on how it is designed, deployed and integrated into real-life relationships. Given the current prioritisation of monetisation and engagement over well-being and healthy developmental outcomes, we can only be deeply concerned.

Research will always lag behind the real-world experience of young people[20], but timely access to platform data, robust experimental research and our willingness to discuss, debate and then implement pre-emptive ethical safeguards will be key in assessing and preventing harm from such digital technologies.

Two sides of the same coin: Prevention and adolescent social ecology

Our success in moving towards a prevention-based approach to mental health means placing the social world – and social capital – at the foundation. This will involve distilling the evidence that exists (and investing in more research) to identify mechanisms that contribute to resilient development. In our view, promising mechanisms include trust, agency and belonging. As we build understanding we can then use this to inform our community activities, including the work of youth hubs, as well as our workforce training and our commissioning and policy decisions.

This would be part of acting in an evidence-informed way to rebuild and invest in the real-world infrastructure that enables social capital to develop. Any putative mechanisms depend on social opportunities for learning and development to take place. We must ask how often do young people today:

- Play outdoors unsupervised

- Interact with peers across age groups

- Engage in shared community rituals or activities

- Experience trusted relationships with adults beyond their family, including teachers

- Navigate risk, conflict or difference without adult intervention

- Have opportunities to explore their social worlds in unstructured ways, pursuing hobbies and interests for their own sake without seeing them as stepping stones to better grades or improved employment chances

For many, these experiences are increasingly less and less common.

Policy and practice: Reimagining the social infrastructure of childhood

To reverse the erosion of adolescent social capital, we need bold, coordinated action to restore the physical, relational and community-based foundations that support healthy development. This requires shifting attention from isolated digital interventions towards a broader investment in the social ecology of childhood, spaces, relationships and institutions that foster connection, agency and trust.

Policy

The new UK government will shortly publish a National Youth Strategy that is co-produced with young people. This is an important step in the right direction but we need more:

- Provide long-term, ringfenced funding for youth services through a national endowment for adolescent development – for example, a National Play and Social Infrastructure Strategy to legally protect access to parks, youth clubs, libraries and community spaces.

- Embed social connectedness and wellbeing as core objectives in urban planning, housing and transport policy, with particular attention to the needs of children and young people.

Schools and education settings

We need to reimagine schools as social ecosystems, not just academic institutions:

- Expand unstructured break times and play opportunities.

- Foster a sense of belonging in pupils, as reflected in the Department for Education's opportunity mission[24].

- Reinvest in extra-curricular programmes, intergenerational mentoring and inclusive youth leadership initiatives.

- Provide training focused on what we have learned about effective prevention – helping staff promote social and emotional competencies, recognise and respond to social isolation, and build bridges between schools and wider community organisations.

Families and neighbourhoods

Families and neighbourhoods need to be considered in a wider context:

- Support families not only to manage digital life, but to rebuild opportunities for shared physical experiences, including outdoor play, volunteering, creative projects and civic engagement.

- Invest in community hubs, parent peer support networks, and local initiatives that enable intergenerational connection and informal caregiving.

- Shift the narrative from parenting as individual responsibility to community-supported relational care.

Communities and civil society

Young people must be supported to participate in their communities and civil society:

- Create and sustain everyday spaces of belonging for young people, including open-access youth centres, creative spaces, sports groups, and faith or cultural venues that provide consistency and adult guidance.

- Fund local organisations that build trust and offer developmental relationships, particularly in underserved areas.

- Ensure young people are co-designers of the services and spaces intended for them.

Important steps are being taken towards this last point, such as the announcement by the government of an £88 million investment in youth services and after-school opportunities for young people across England[25].

Digital and tech regulation

Our approach must shift to take into account a developmental framework:

- Align technology regulation with developmental goals.

- Move towards child-centred design standards, requiring transparency around algorithmic influence and limiting addictive features that displace real-world interaction.

- Prioritise access to data for independent researchers studying the impact of design features on adolescent agency and social development.

Research and evaluation

Research and evaluation will be key to creating long-term change:

- Increase long-term funding for participatory research focused not only on mental health symptoms, but on prevention – particularly how young people build social capital (including trust, relationships and agency) across settings.

- Develop indicators that capture the quality of peer relationships, play, belonging and resilience, not just digital consumption or diagnostic criteria.

- Evaluate social policies for their impact on connection and relational growth.

Relationships: The cornerstone of healthy development

Humans are intrinsically social animals. We are biologically wired for connection. A good childhood and adolescence – and one that builds the foundations for future wellbeing – is defined by the quality of relationships and environments that shape young people's lives. One that is socially rich, developmentally expansive, and anchored in opportunities to build trust, exercise agency, and grow through connection with others. This is true in the 21st century as it always has been.

We are witnessing the disappearance of the real-world infrastructure that enables young people to play, explore, take risks, and form lasting social bonds with peers and adults. In a recent essay, the Princess of Wales alongside Professor Robert Waldinger (2025)[26], have made a similar argument with respect to the importance of human connection in a distracted and increasingly digital world.

Digital platforms are now part of our societal fabric, but they must complement, not replace, the embodied, reciprocal experiences that nurture social capital. Technology should support, not supplant, the shared spaces where young people learn who they are, how to belong, and how to contribute to the world around them.

If we want to address the significant rise in adolescent mental health problems, and equip young people with the skills and confidence to navigate a rapidly changing world we need to move deliberatively and intentionally towards a prevention based approach, one not focussed on symptoms, but on building social capital. We are witnessing an incremental process of social thinning. This requires a collective and proactive societal response.

We need to reimagine and prioritise the social ecology of adolescence for the digital age – and reinvigorate the very human foundation for lifelong physical and mental health: our relationships with each other.

About Anna Freud

Anna Freud is a pioneering mental health charity, transforming care for children and young people through science, collaboration and clinical innovation. Our research sheds light on why mental health problems develop so we can design new approaches to prevention and intervention with children, young people, families and communities. We share our expertise through training, and help services and policymakers improve the systems that shape young lives. In a rapidly changing world, we champion fresh, practical approaches that give every child the opportunity to thrive.

Endnotes

1   NHS England Digital. 2023. Mental Health of Children and Young People in England, 2023—Wave 4 follow up to the 2017 survey. Available from: https://digital.nhs.uk/data-and-information/publications/statistical/mental-health-of-children-and-young-people-in-england/2023-wave-4-follow-up.

2   Blakemore, SJ, & Mills, KL. 2014. Is Adolescence a Sensitive Period for Sociocultural Processing? Annual Review of Psychology 65. 187–207. Available from: https://doi.org/10.1146/annurev-psych-010213-115202.

3   Pierce, M, et al. 2025. Understanding drivers of recent trends in young people's mental health. Youth Futures Foundation. Available from: https://youthfuturesfoundation.org/publication/report-understanding-drivers-of-recent-trends-in-young-peoples-mental-health/.

4   Crone, EA, & Dahl, RE. 2012. Understanding adolescence as a period of social–affective engagement and goal flexibility. Nature Reviews Neuroscience 13. 636–650. Available from: https://doi.org/10.1038/nrn3313.

5   UNISON. 2024. Closure of more than a thousand youth centres could have lasting impact on society. Available from: https://www.unison.org.uk/news/2024/06/closure-of-more-than-a-thousand-youth-centres-could-have-lasting-impact-on-society/.

6   Villa, C. 2024. The effects of youth clubs on education and crime (Working Paper No. 24/51). Institute for Fiscal Studies. Available from: https://doi.org/10.1920/wp.ifs.2024.5124.

7   Flood, A. 2019. Britain has closed almost 800 libraries since 2010, figures show. The Guardian. Available from: https://www.theguardian.com/books/2019/dec/06/britain-has-closed-almost-800-libraries-since-2010-figures-show.

8   Raising the Nation Play Commission & Centre for Young Lives. 2025. Everything to play for: A plan to ensure every child in England can play. Available from: https://www.playengland.org.uk/newsblog/play-commission-report-everything-to-play-for-a-national-wake-up-call-on-play.

9   YMCA & Vestey Holdings. 2025. Beyond the Brink? The state of funding for youth services. Available from: https://ymca.org.uk/wp-content/uploads/2025/01/ymca-youth-services-beyond-the-brink.pdf.

10   Lukianoff, G, & Haidt, J. 2018. The coddling of the American mind: How good intentions and bad ideas are setting up a generation for failure. Penguin Books.

11   Fonagy, P. 2025. Understanding the crisis in young people's mental health. The Health Foundation. Available from: https://www.health.org.uk/features-and-opinion/blogs/understanding-the-crisis-in-young-people-s-mental-health.

12   Raising the Nation Play Commission & Centre for Young Lives. 2025. Everything to play for: A plan to ensure every child in England can play. Available from: https://www.playengland.org.uk/newsblog/play-commission-report-everything-to-play-for-a-national-wake-up-call-on-play.

13	Ferguson, M, et al. 2025. The association between park visits, outdoor play and child social-emotional competency in a multi-ethnic, urban cohort. Wellbeing, Space and Society 9. 100293. Available from: https://doi.org/10.1016/j.wss.2025.100293.

14	Waytz, A, & Gray, K. 2018. Does Online Technology Make Us More or Less Sociable? A Preliminary Review and Call for Research. Perspectives on Psychological Science 13. 473–491. Available from: https://doi.org/10.1177/1745691617746509.

15	Lieberman, A, & Schroeder, J. 2020. Two social lives: How differences between online and offline interaction influence social outcomes. Current Opinion in Psychology 31. 16–21. Available from: https://doi.org/10.1016/j.copsyc.2019.06.022.

16	Carr, K, Whitehead, P, & Burtonshaw, S. 2025. Listening to, and learning from, young people in the attendance crisis. Impetus and Public First. Available from: https://www.impetus.org.uk/news-and-views/listening-learning-attendance-report.

17	Papageorgiou, A, Fisher, C, & Cross, D. 2022. "Why don't I look like her?" How adolescent girls view social media and its connection to body image. BMC Women's Health 22. 261. Available from: https://doi.org/10.1186/s12905-022-01845-4.

18	Leonhardt, M, & Overå, S. 2021. Are There Differences in Video Gaming and Use of Social Media among Boys and Girls?—A Mixed Methods Approach. International Journal of Environmental Research and Public Health 18. 6085. Available from: https://doi.org/10.3390/ijerph18116085.

19	Orben, A, et al. 2022. Windows of developmental sensitivity to social media. Nature Communications 13. 1649. Available from: https://doi.org/10.1038/s41467-022-29296-3.

20	Orben, A, & Matias, JN. 2025. Fixing the science of digital technology harms. Science 388. 6743. Available from: https://doi.org/10.1126/science.adt6807.

21	Giardina, A, et al. 2024. Problematic gaming, social withdrawal, and Escapism: The Compensatory-Dissociative Online Gaming (C-DOG) model. Computers in Human Behavior 155. 108187. Available from: https://doi.org/10.1016/j.chb.2024.108187; McComb, CA, Vanman, EJ, & Tobin, SJ. 2023. A Meta-Analysis of the Effects of Social Media Exposure to Upward Comparison Targets on Self-Evaluations and Emotions. Media Psychology 26. 612–635. Available from: https://doi.org/10.1080/15213269.2023.2180647.

22	World Health Organization. 2025. From loneliness to social connection—Charting a path to healthier societies: Report of the WHO Commission on Social Connection. Available from: https://www.who.int/publications/i/item/978240112360.

23	McCrory, E, Foulkes, L, & Viding, E. 2022. Social thinning and stress generation after childhood maltreatment: A neurocognitive social transactional model of psychiatric vulnerability. The Lancet Psychiatry 9. 828–837. Available from: https://doi.org/10.1016/S2215-0366(22)00202-4.

24	HM Government. 2024. Plan for change: Milestones for mission-led government. Available from: https://www.gov.uk/government/publications/plan-for-change.

25	Department of Culture, Media and Sport, Prime Minister's Office, 10 Downing Street, The Rt Hon Sir Keir Starmer KCB KC MP, & The Rt Hon Lisa Nandy MP. 2025. Prime Minister unveils new opportunities for young

people to re-connect with their communities. Available from: https://www.gov.uk/government/news/prime-minister-unveils-new-opportunities-for-young-people-to-re-connect-with-their-communities.

26   Her Royal Highness, the Princess of Wales, & Robert Waldinger. (2025). The power of human connection in a distracted world. https://centreforearlychildhood.org/news-insights/guest-essays/the-power-of-human-connection-in-a-distracted-world/