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Screen Savers: Protecting Adolescent Mental Health in a Digital World

Professor Amy Orben
Research Professor, University of Cambridge
June 2026

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Conflicts of Interest Declaration

In the past 36 months:

Funders and Team Consultancy Payments: Wellcome Trust, UKRI, Jacobs Foundation, Prudence Trust, UK Department for Science, Innovation and Technology, National Institute of Health, University of Cambridge, Livelihood Impact Fund, Nathoo Family Trust

Personal Consulting: Digital Futures for Children Centre

Speaker Payment: SWfGL, Apple University

Committee Membership: Digital Futures for Children Centre (paid), ESRC Smart Data Research UK, British Academy, UK Department for Education, UK Department of Science, Innovation and Technology, UK Department for Culture, Media and Sports, Australian eSafety Commissioner

Hospitality: Attended working dinners with Nick Clegg (Meta) and Parent Zone in 2023

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“Here is a device [that is] is everywhere (...) We may question the quality of its offering for our children, we may approve or deplore its entertainments and enchantments; but *we are powerless* to shut it out (...) it comes into our very homes and *captures our children* before our very eyes ”

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“Here is a device [that is] is everywhere (...) We may question the quality of its offering for our children, we may approve or deplore its entertainments and enchantments; but *we are powerless* to shut it out (...) it comes into our very homes and *captures our children* before our very eyes ”

A parenting magazine about the radio (Frank 1939)

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**“No locks will keep this
intruder out, nor can parents
shift their children away from
it”**

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**“No locks will keep this
intruder out, nor can parents
shift their children away from
it”**

Director of the Child Study Association of America about
the radio (Gruenberg 1935)

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The Journal of Pediatrics

VOL. 19

AUGUST, 1941

No. 2

Original Communications

CHILDREN'S REACTIONS TO MOVIE HORRORS AND RADIO CRIME

MARY I. PRESTON, M.D.
SAN FRANCISCO, CALIF.

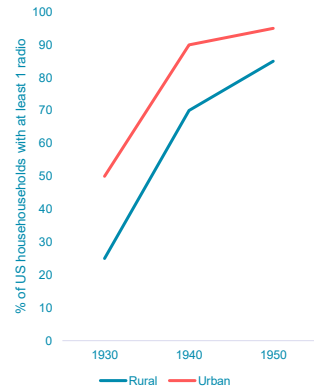
Terrifying scenes can have an inhibitory effect on the functioning of every organ in the body. Eating disturbances interfere with weight gains. No child with overwrought nerves can digest his food properly; indeed, in every system, elimination, circulation, or what not, interference can take place. Bad dreams and poor sleep can cause lack of appetite, irritability, malaise, thinking difficulties, and, by reacting on the nervous system, a whole train of undesirable symptoms. In short, the patient becomes inadequate to meet life's demands without strain and shows it in his under-par condition.

A true addiction apparently develops in the devotees of "bad" movies and radio, hastened and reinforced by vicarious participation in the scenes witnessed or heard, no matter of what nature, the fascination holding even with revulsion from frightful situations. In the case of unhappy children, most of them utilize the addiction as an escape from reality, much as a chronic alcoholic does drink. The effects of habituation in the form of callousness to the suffering of others began to show



The Radio

(Dennis 1980; image from Library of Congress)



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But is now different?

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1. Children are using much more media

1934 – 10 hours a week using media

1980s – 15 hours a week watching TV

2019 – 20 hours a week online

2026 – 28 hours a week online (13-14 year olds)

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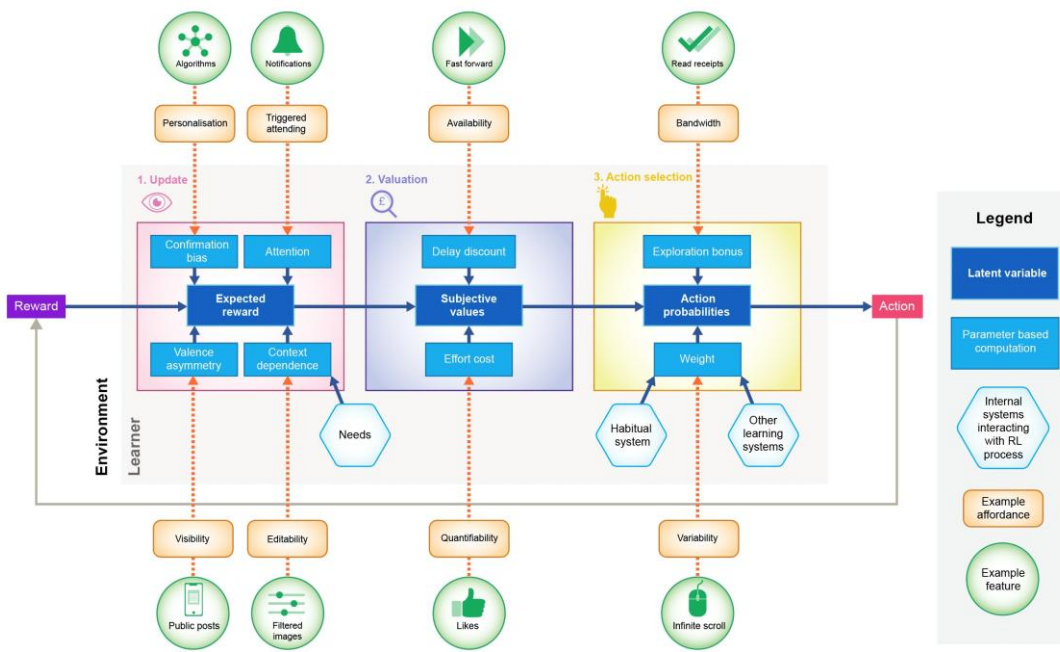
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1. Children are using much more media
2. The technology/attention economy is becoming much more powerful

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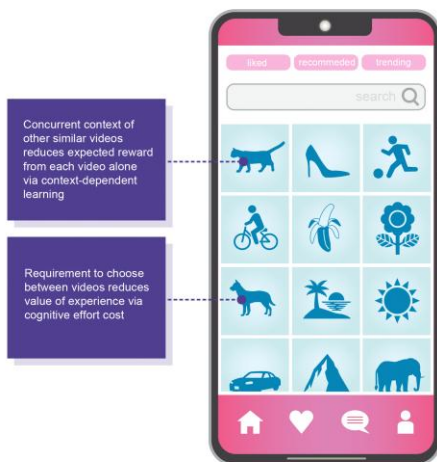


Turner, Ferguson, Katiyar, Palminteri, Orben (Biological Psychiatry, 2025)

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Turner, Ferguson, Katiyar, Palminteri, Orben (Biological Psychiatry, 2025)

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1. Children are using much more media
2. The technology/attention economy is becoming much more powerful
3. The content shown is getting worse

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1. Children are using much more media
2. The technology/attention economy is becoming much more powerful
3. The content shown is getting worse
4. Tech company bosses are largely unaccountable

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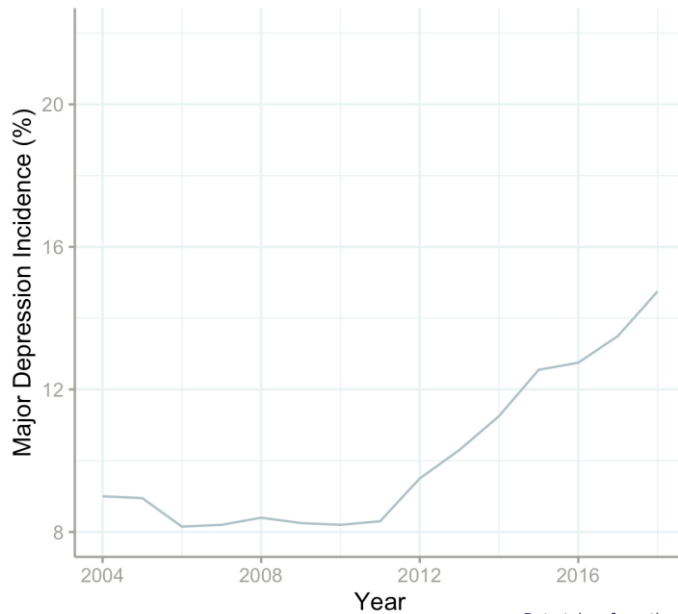
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1. Children are using much more media
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5. Well-being and mental health on individual and societal levels is in decline

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Data taken from the US National Survey on Drug Use and Health, Table 11.2b

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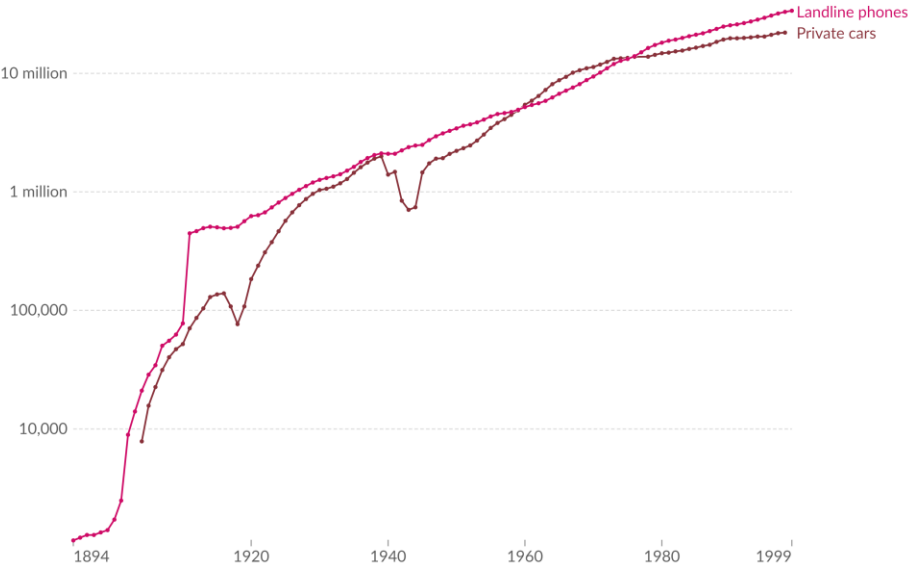
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1. Children are using much more media
 2. The technology/attention economy is becoming much more powerful
 3. The content shown is getting worse
 4. Tech company bosses are largely unaccountable
 5. Well-being and mental health on individual and societal levels is in decline
- we also have **less and less** time to figure things out

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Technology and infrastructure diffusion in the United Kingdom

Our World
in Data



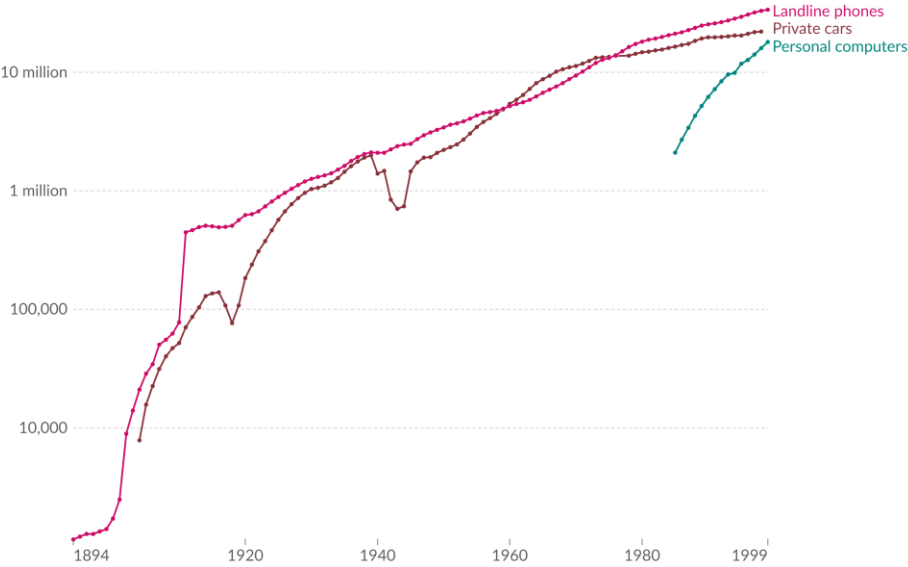
Data source: Data compiled from multiple sources by Comin & Hobijn (2004)

OurWorldInData.org/technological-change | CC BY

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Technology and infrastructure diffusion in the United Kingdom

Our World
in Data



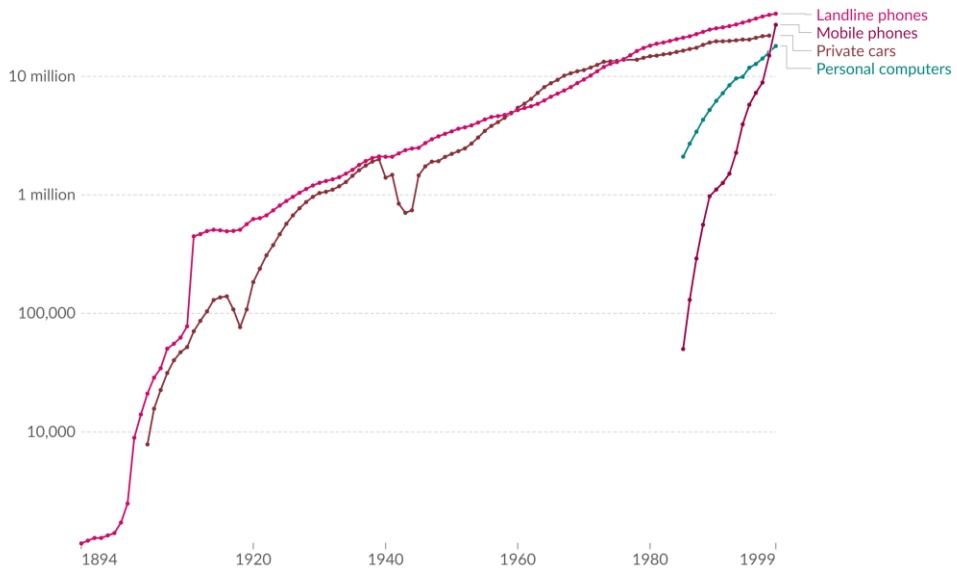
Data source: Data compiled from multiple sources by Comin & Hobijn (2004)

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Technology and infrastructure diffusion in the United Kingdom

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Data source: Data compiled from multiple sources by Comin & Hobbijn (2004)

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The Current Debate

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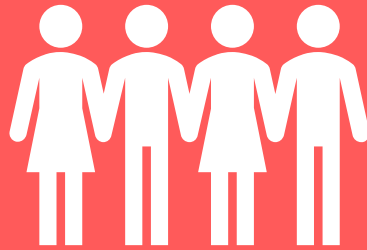
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Individual



Population

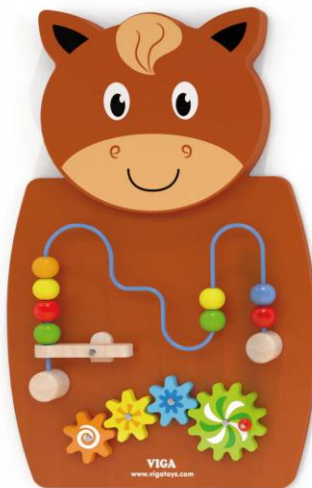
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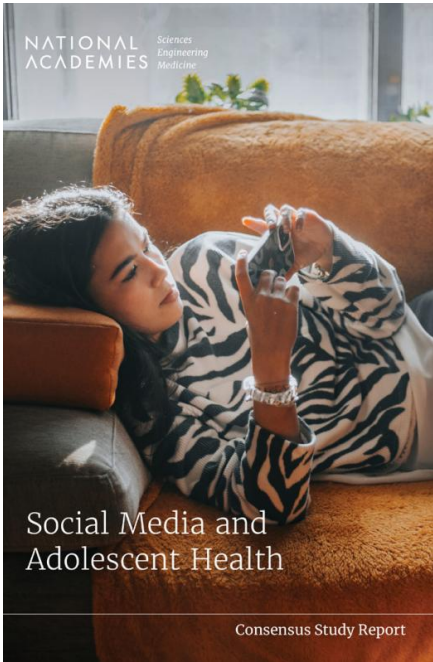
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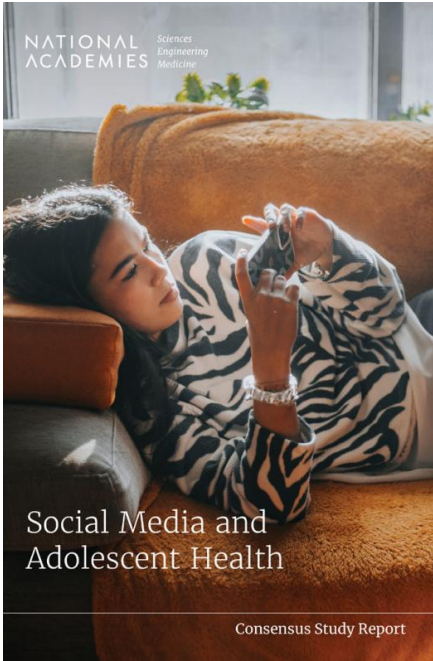
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The committee’s review of published literature did not support the conclusion that social media causes changes in adolescent health at the population level. The report also notes that the use of social media—rather than having purely negative or positive impacts—is likely a constantly shifting calculus of the risky, the beneficial, and the mundane that affects different people in different ways. Due to the lack of robust evidence

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Research and analysis

Understanding the impact of smartphones and social media on children and young people: executive summary

Published 20 January 2026

Contents

[Executive summary](#)

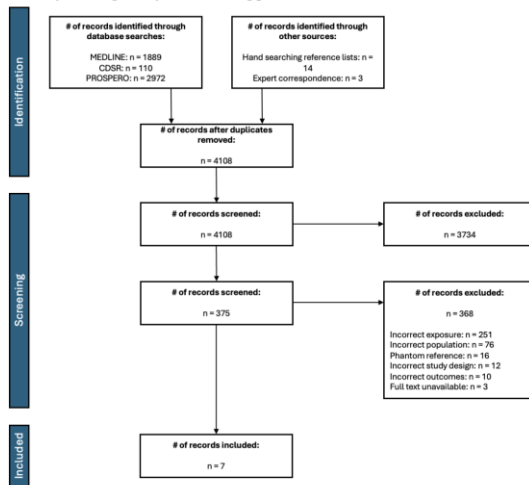
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Executive summary

There is growing concern about the risks digital technologies, particularly social media, smartphones and Artificial Intelligence (AI), may pose to individual children and adolescents, including severe outcomes such as sexual exploitation, bullying-related distress and premature death. These individual-level harms require urgent attention from research, industry and policy.

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PRISMA flow diagram of the screening process



Orben et al. (2026)

Lack of experimental evidence

- Non-peer-reviewed study of healthy under-18s in Denmark: no improvement in wellbeing after a 4-week intervention to reduce social media use by ~1hr a day (Hansen et al. 2026)
- Under-18s with pre-existing mental health symptoms: 3-week social media reduction decreased depression, anxiety and fear of missing out, and increased sleep (David & Goldfield (2025))

The IRL Trial

Funded by



- **Population:** 12-15 year olds
- **Intervention:** An app that enforces a daily budget (e.g. 1 hour) and a curfew (e.g. 9pm – 7am)
- **Control:** Usual practice
- **Outcome:** Self-reported anxiety



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Evidence in adults

- 2 meta-analyses of **social media abstinence** in adults (mean ages: 28.82-30.21): one finds no significant effects on well-being (Lemahieu et al. 2025), other finds small positive effects (Liu et al. 2025).
- One meta-analysis of **social media reduction interventions** finds small but significant positive benefit for subjective well-being in young adults (mean age: 23; Burnell et al. 2025)
- One meta-analysis finds that **restrictions of social media** for short periods of time led to negative outcomes while longer restrictions led to positive outcomes (Thrul et al. 2025).

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RCT: Secondary Analysis of Screen Media Use and Mental Health of Children and Adolescents

POPULATION

82 Boys, 99 Girls



Healthy children and adolescents who were able to hand over their smartphones or tablets for 2 wk
Mean age, 9.1 y

INTERVENTION

89 Families (174 children) analyzed



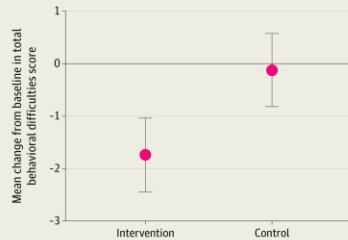
82 Children Intervention
Hand over smartphones and tablets for 2 wk and reduce leisure screen media use to <3 h/wk



91 Children Control
Usual screen media use during leisure

FINDINGS

The intervention group had a significantly greater improvement in total behavioral difficulties compared to the control group



Between-group mean difference in change in total behavioral difficulties score, -1.67 (95% CI, -2.68 to -0.67)

SETTINGS / LOCATIONS



89 Family homes in Denmark

PRIMARY OUTCOME

Change from baseline to 2 wk in total behavioral difficulties, measured using age-appropriate versions of the Strengths and Difficulties Questionnaire (range, 0-40 points, with higher scores indicating more difficulties)

Schmidt-Persson J, Rasmussen MGB, Sørensen SO, et al. Screen media use and mental health of children and adolescents: a secondary analysis of a randomized clinical trial. *JAMA Netw Open*. 2024;7(7):e2419881. doi:10.1001/jamanetworkopen.2024.19881

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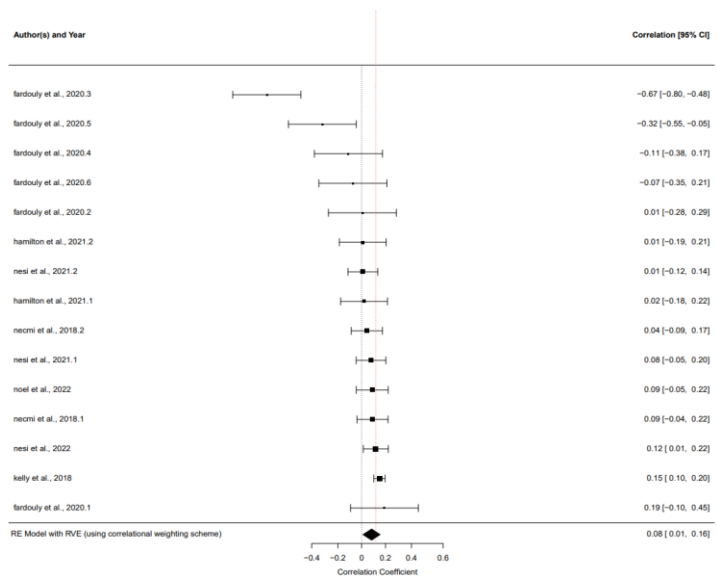
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Clinical Groups

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Fassi, Thomas, Parry, Leyland-Craggs, Ford, Orben (2024, *JAMA Pediatrics*)

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Fassi et al. (Nature Human Behaviour, Stage 2 Registered Report, 2025) 38

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Fassi et al. (Nature Human Behaviour, Stage 2 Registered Report, 2025) 39



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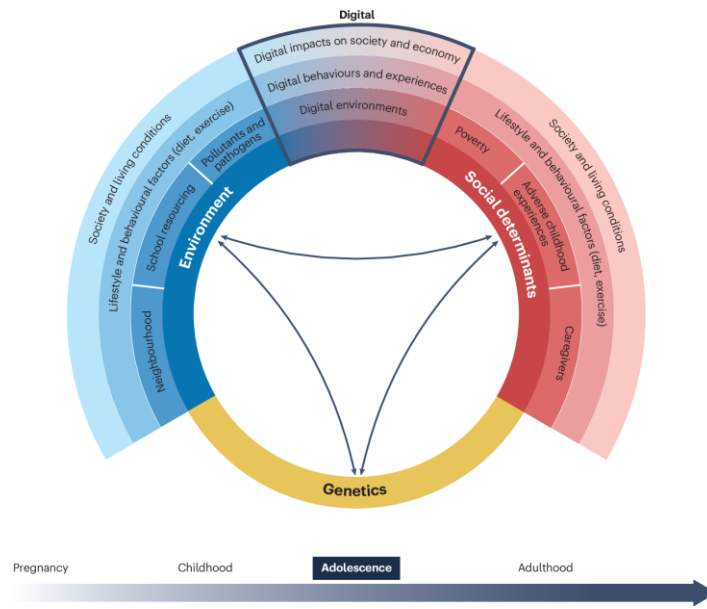


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Social Media is a Complex System



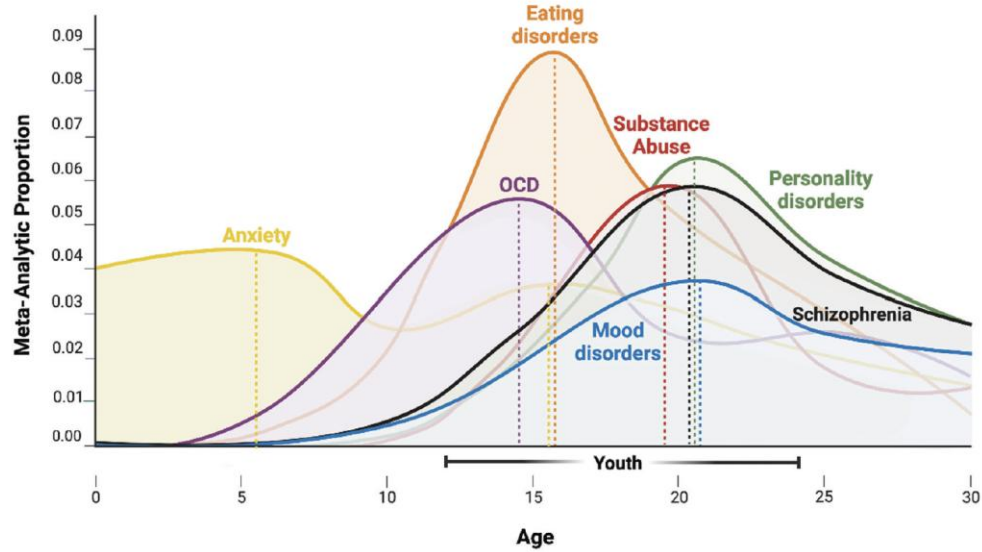
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Orben, Meier, Dalgleish, Blakemore (Nature Reviews Psychology, 2024)

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Uhlhaas et al. (Molecular Psychiatry, 2023)
Orben et al. (Nature Reviews Psychology, 2024)

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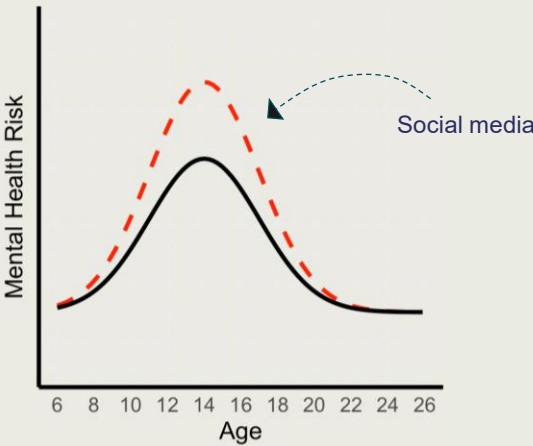
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Orben and Blakemore (2023)
Orben, Meier, Dalglish and Blakemore (2024)

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What makes social media different?

- **Availability:** ease of communication and access, “always on” nature, time displacement
- **Curated Self-Disclosure:** active management of social media profile(s)
- **Permanency:** posts/interactions are permanent, retrievable, searchable and replicable
- **Publicness:** posts/interactions are scalable/sharable, “context collapse”
- **Feedback:** quantified social feedback (e.g., likes), decreased qualitative feedback, asynchronicity, anonymity
- **Content:** algorithms, influencers



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Orben, Meier, Dalglish, Blakemore (Nature Reviews Psychology, 2024)

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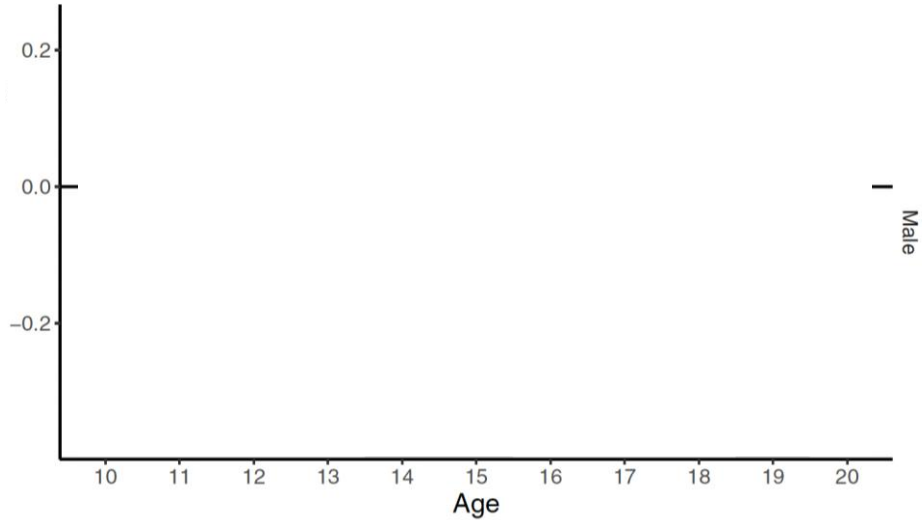
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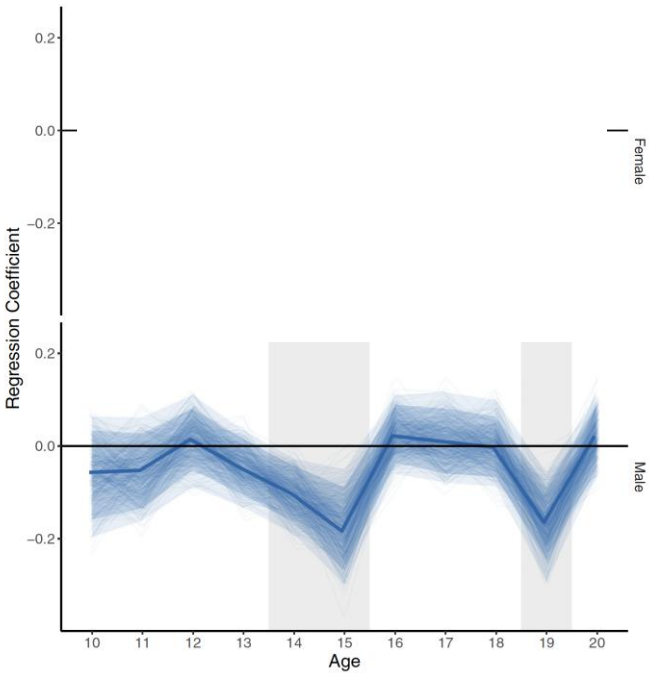
Adolescents

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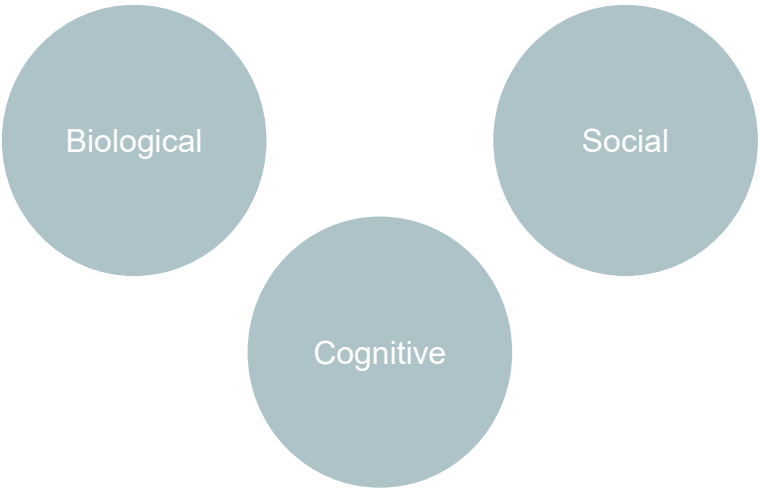


Orben, Przybylski, Blakemore and Kievit (Nature Communications, 2022)

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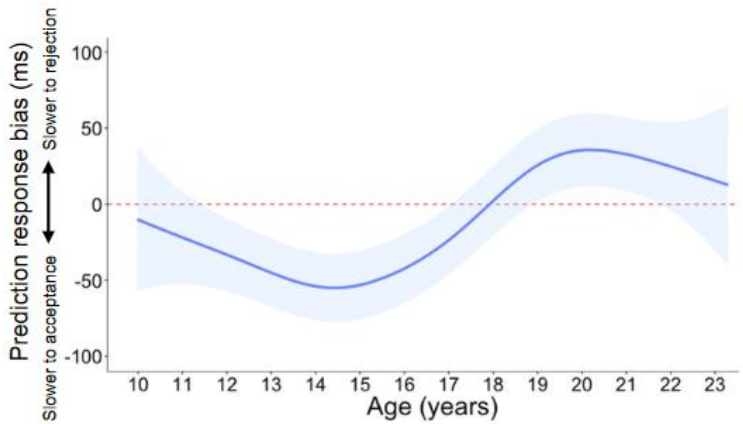


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Orben, Przybylski, Blakemore and Kievit (Nature Communications, 2022)

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Rodman et al. (2017)

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What can we do?

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How much screen time should my child have?

Limit total screen time for young children,
wherever possible.

- **Under 2 years:** Avoid screen time other than for shared activities with family that encourage bonding, interaction and conversation.
- **2-5 years:** Try to keep it to 1 hour a day. Less if possible.

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What content is better content?

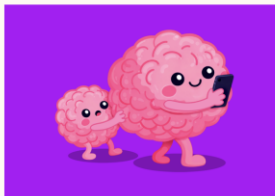
Young children's brains are stimulated much more easily than adults', so they need content specifically made for them.



- **Slow-paced content:** Slow-paced, predictable content is better for young brains. Fast-paced, over-stimulating social media-style videos may affect how young children learn to concentrate, so it's best to avoid them.
- **Choose safe content:** Use parental controls to block inappropriate, harmful content.
- **Avoid social media:** Social media isn't made for young brains, so it should be avoided.
- **Avoid AI:** Don't let young children use AI toys, tools or chatbots until there's more evidence on how they affect your child. This includes devices or apps such as interactive robots, smart speakers or AI chat apps.

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How does my own screen use affect my child?



- **Lead by example:** Children's brains are like sponges – they'll copy your screen use habits. Be mindful of how often you use your phone around your child.
- **Being present with your child:** Spending long periods on your phone can make it harder to notice what your child is doing or feeling. Young children need attention, interaction and shared moments with their parents and carers to feel secure and supported.

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When and where is okay for my child to use screens?

Set clear boundaries for when and where little brains use screens to ensure time for other activities that support their development.



- **Avoid young children using screens alone** as it reduces opportunities for social time and active play. Try watching and discussing content together with your child as it supports their development and helps you protect them from harmful content.
- **Screen-free zones:** Keep bedrooms and mealtimes free from screens. This can protect valuable family time and interaction.
- **Background watching:** Try not to have screens on in the background particularly during family time, meals or playtime. Screens can distract from beneficial activities for your child such as social interaction and active play.

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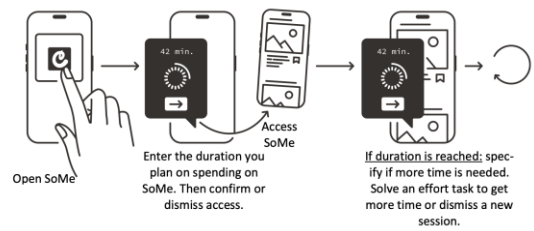
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Balancing risks of different policy interventions

- Risk of benefit
- Risk of harm
- Risk of harm if no intervention is implemented
- Risk of harm if other intervention is implemented

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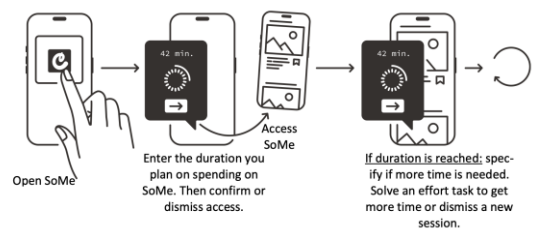
Planning



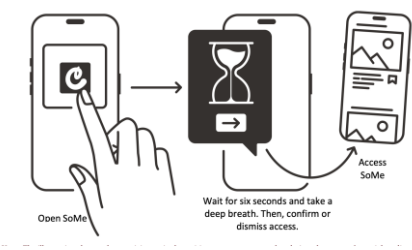
DCCA, 2025

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Planning



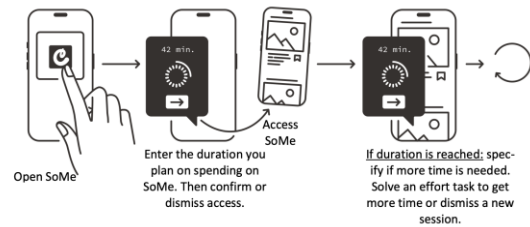
Waiting



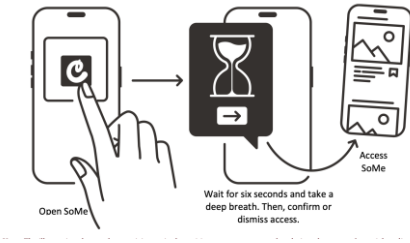
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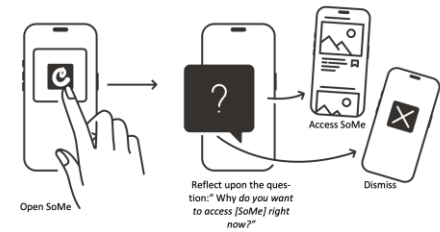
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Waiting



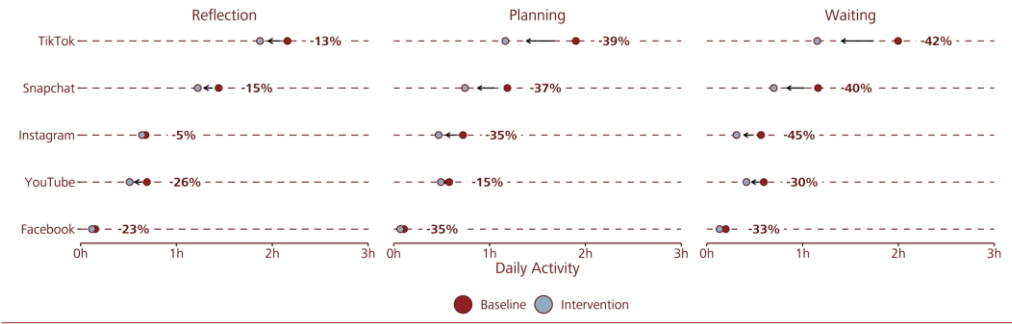
Reflection



DCCA, 2025

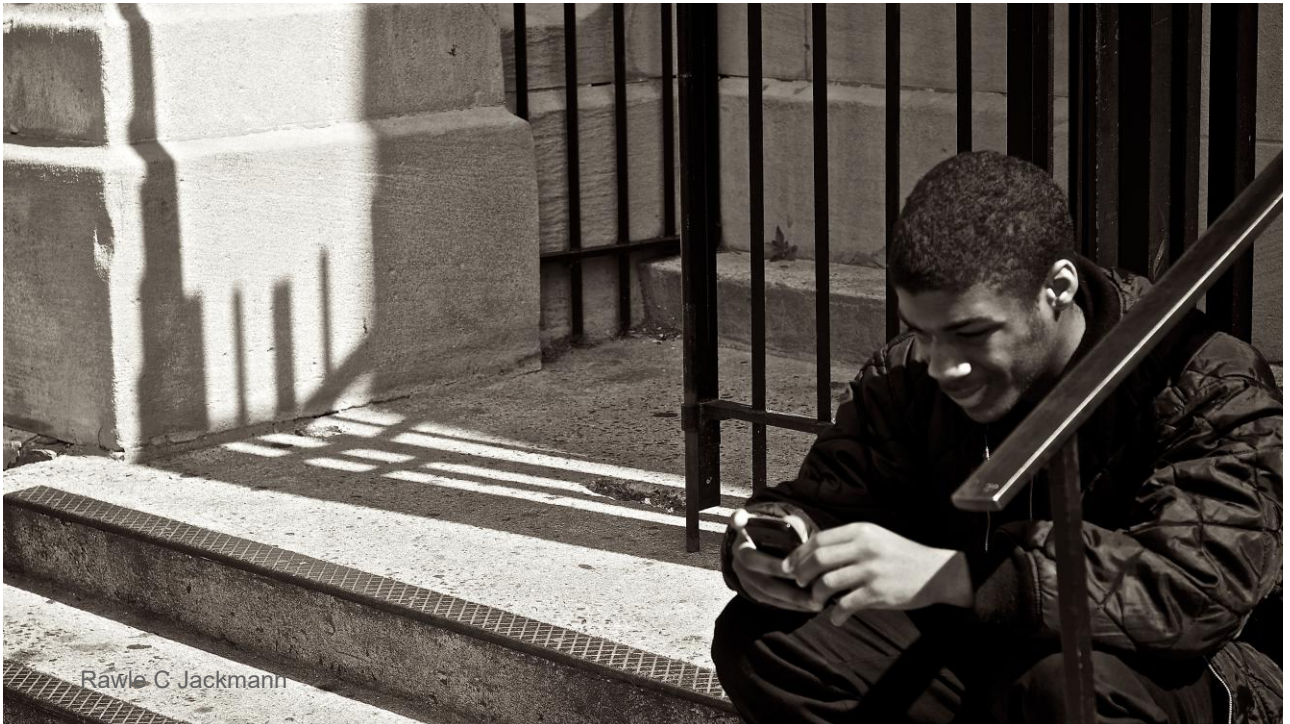
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Figure 4.1 Changes in the Average Daily Social Media Activity Between the Baseline and Intervention Periods Based on Platforms and Groups

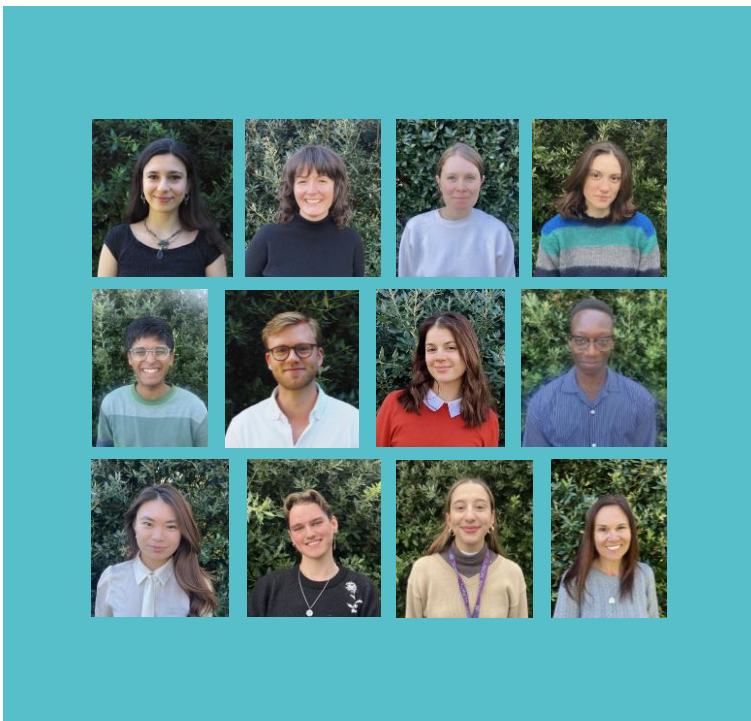


DCCA, 2025

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