

TYFU I FYNY YN DDIGIDOL:

Sut mae technoleg yn siapio bywydau a dysgu ein plant




GROWING UP DIGITAL:

How technology shapes the lives and learning of our children

Cyngor y Gweithlu Addysg
Rhithwir 🕒 26^{ain} Ionawr 2021

Education Workforce Council
Virtual 🕒 26th January 2021

 @pasi_sahlberg



GONSKI INSTITUTE

TYFU I FYNY YN DDIGIDOL:

Sut mae technoleg yn siapiro bywydau a dysgu ein plant



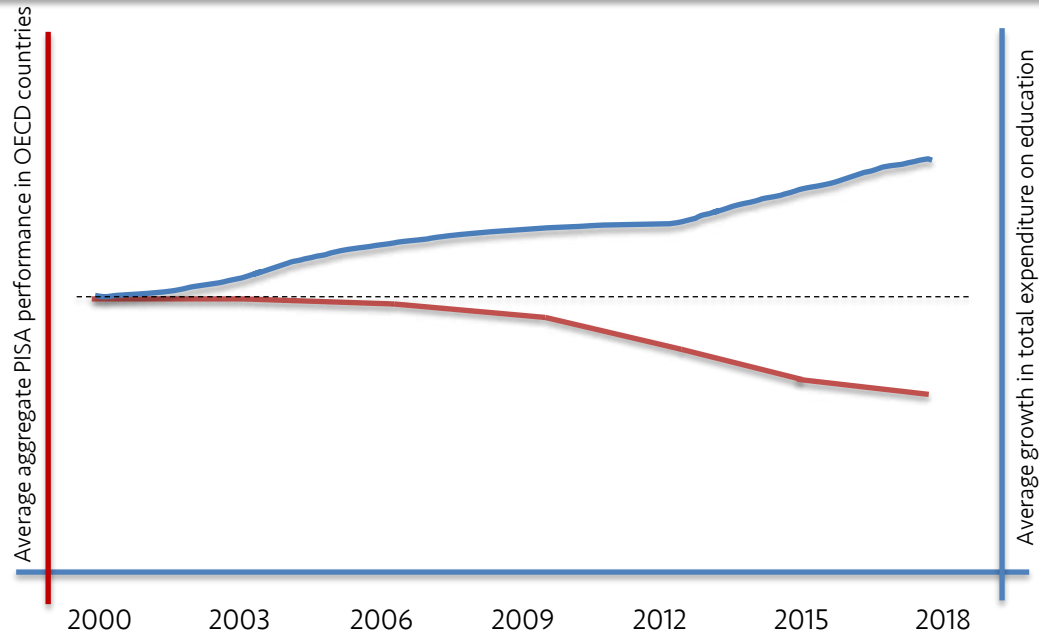
GROWING UP DIGITAL:

How technology shapes the lives and learning of our children

1. Rhai tueddiadau byd-eang
Some global trends
2. Y Cwestiwn Mawr
The Big Question
3. Atebion sy'n dod i'r amlwg: Astudiaeth Tyfu i Fyny yn Ddigiol
Emerging answers: Growing Up Digital Study
4. Beth allwn ei wneud?
What can we do?

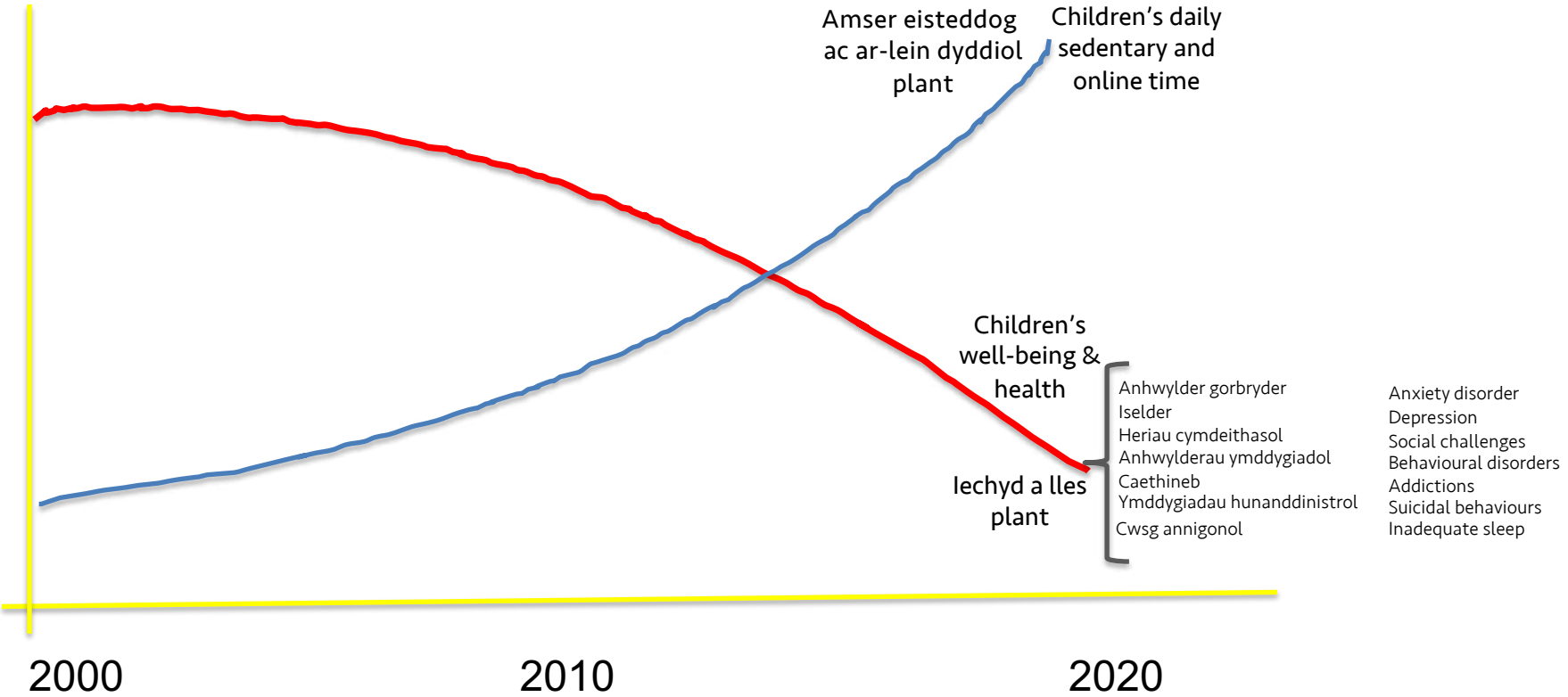
Tueddiad byd-eang 1: Dysgu Myfyrwyr

Global trend 1: Student learning



Tueddiad byd-eang 2: Lles myfyrwyr

Global trend 2: Student wellbeing



Tueddiad byd-eang 3: Plant yn tyfu i fyny â dyfeisiau digidol

Global trend 3: Children growing up with digital gadgets

Mae plant oedran ysgol yn Awstrlia yn treulio tua 11 awr yn eistedd bob dydd, a hanner hwn ar-lein ar sgriniau.

- Mae gan draean o blant dan oed ysgol ddyfais sgrîn
- Mae gan ddau draean o blant ysgol gynradd ffôn smart
- Mae gan bron holl fyfyrwyr ysgol uwchradd ffôn smart

Astudiaeth Child Health CheckPoint, 2019

School-aged children in Australia spend about 11 hours sitting each day, half of it online on screens.

- One third of pre-schoolers own a screen-based device
- Two thirds of primary school children have smartphone
- Almost all secondary school students own smartphone

Child Health CheckPoint Study, 2019

Tueddiad byd-eang 3: Plant yn tyfu i fyny â dyfeisiau digidol

Global trend 3: Children growing up with digital gadgets

The New York Times

Children's Screen Time Has Soared in the Pandemic, Alarming Parents and Researchers

"There will be a period of epic withdrawal," warned one addiction specialist, once schools, activities and social life return to normal.

310



James Reichert, 14, with his parents John and Cathleen, spent increasing hours on his Xbox and on social media during the long months of lockdown and closed school. Stephen Speranza for The New York Times

By Matt Richtel

Published Jan. 16, 2021 Updated Jan. 17, 2021

Support The Guardian Available for everyone, funded by readers
Contribute → Subscribe →

Search jobs Sign in Search The Guardian US edition

News Opinion Sport Culture Lifestyle More

Education Schools Teachers Universities Students

Coronavirus

Concerns grow for children's health as screen times soar during Covid crisis

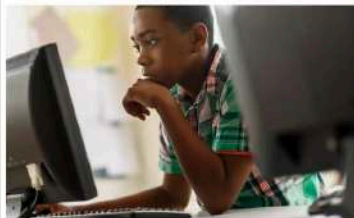
Experts say rise in sleep and eyesight problems may also be linked to increased use of digital devices

- Coronavirus - latest updates
- See all our coronavirus coverage

Linda Geddes and Sarah Marsh

Fri 22 Jan 2021 07:34 EST

181



▲ Time spent online has surged in the past year as many children switch to home learning during the Covid pandemic. Photograph: Tetra/Alamy

The rise in children's screen time during the pandemic has triggered calls for greater interactivity and outdoor exercise to bolster learning and guard against an epidemic of shortsightedness.

Time spent online has increased dramatically in the past year. Millions of pupils have been forced to switch to remote learning, while social media use has skyrocketed, according to Qustodio, which tracks usage of tens of thousands of devices by children aged four to 15 in the UK, US and Spain.

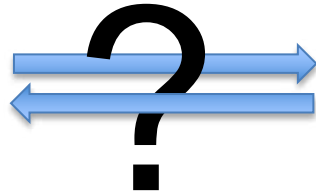
Based on anonymous online habits data provided by 60,000 families, website and app visits in the UK were up by more than 100% this month compared with January 2020, spurred by YouTube, TikTok and BBC News. The average daily time spent on apps rose by 15%.

Y Cwestiwn Mawr

The Big Question

Y defnydd o gyfryngau a
dyfeisiau digidol (amser sgrîn)

Use of digital media and
gadgets (screentime)



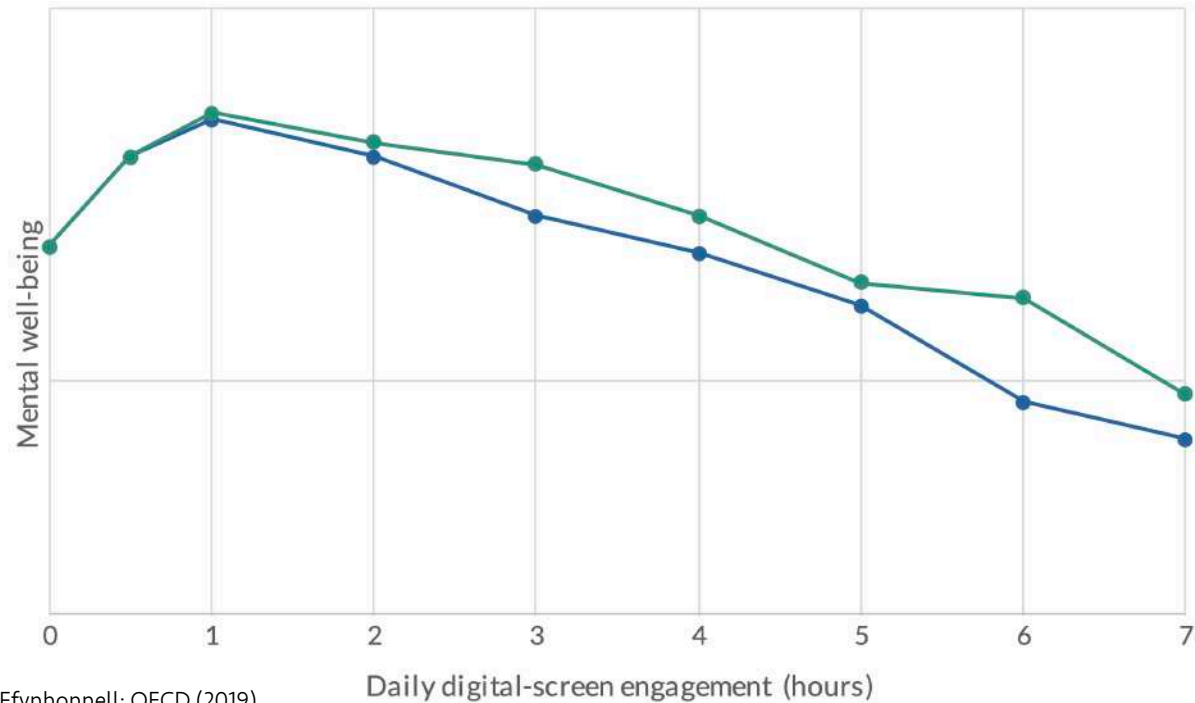
Lles
Iechyd
Hunaniaeth
Dysgu

Wellbeing
Health
Identity
Learning

Beth mae'r ymchwil yn ei ddweud?

What does research say?

Mental well-being as a function of screen time



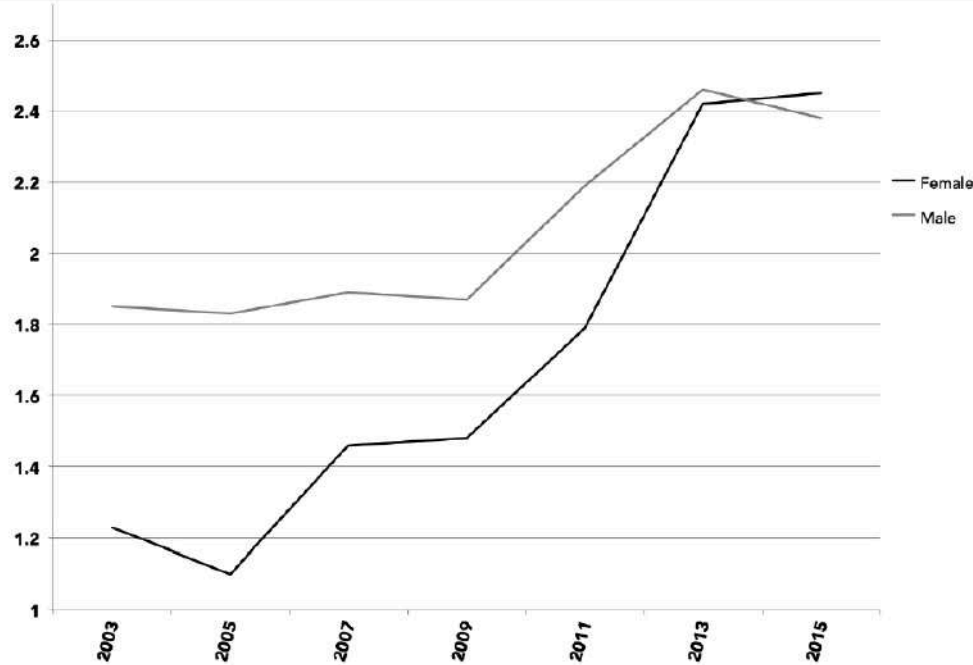
Ffynhonnell: OECD (2019)

Source: OECD (2019)

● Mental well-being weekday ● Mental well-being weekend

Beth mae'r ymchwil yn ei ddweud?

What does research say?



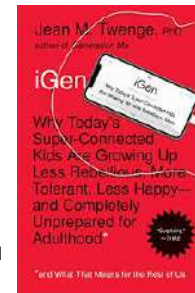
"Mae defnyddwyr uchel yn dangos llai o chwilfrydedd, hunan-reolaeth a sefydlogrwydd emosiynol"

"High users show less curiosity, self-control, and emotional stability."

- Twenge & Campbell (2018)

Figure C.3. Hours spent on electronic devices per day by 9th to 12th graders, by sex. Youth Risk Behavior Surveillance System, 2003–2015.

Jean Twenge (2018): *iGen*. Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy - and Completely Unprepared for Adulthood - and What That Means for the Rest of Us.



Beth mae'r ymchwil yn ei ddweud?

What does research say?

News > Science

Screen time no more harmful to teenage mental health than eating potatoes, study shows

Just 0.4% of wellbeing attributed to use of technology

Tim Wyatt | Monday 14 January 2019 19:19



Beth mae'r ymchwil yn ei ddweud?

What does research say?

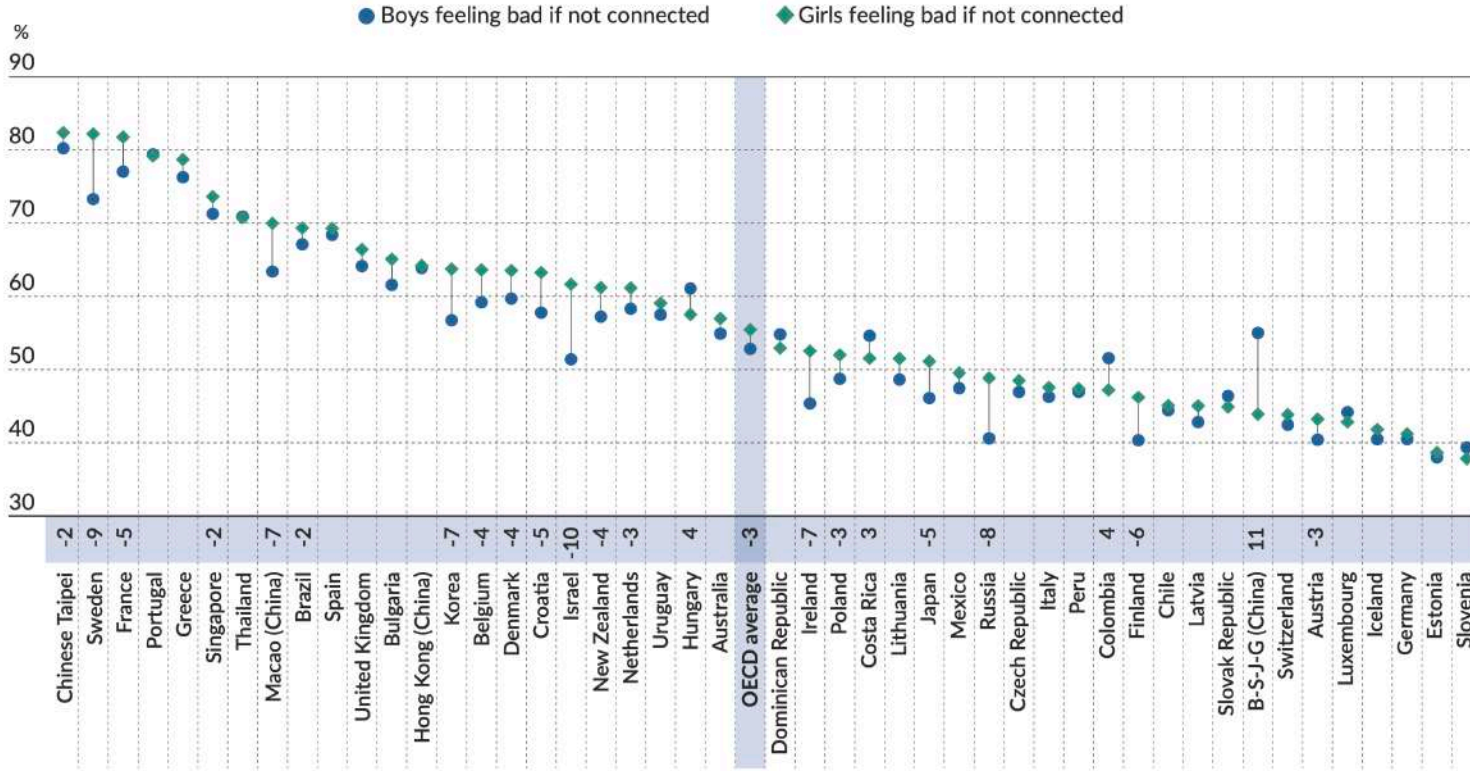
“Mae yna gysylltiad cyfeiriadol rhwng amser sgrîn a pherfformiad gwael ar brofion sgrinio ymhlith plant ifanc iawn.”

“There is directional association between screen time and poor performance on development screening tests among very young children.”

- *Madigan, Browne, Racine, Mori, & Tough, 2019*

Teimlo'n wael heb fod yn gysylltiedig â'r rhyngwrwyd

Feeling bad if not connected to the Internet



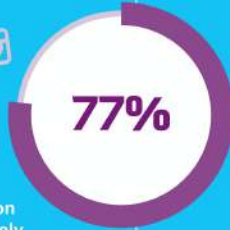
Ffynhonnell: OECD (2019)

Source: OECD (2019)

When Australians* are asked
about the affect of smartphones
and social media...



think smartphones and social media have
reduced time that children have for daily
physical activity and active outdoor play.



say social media is a distraction
in their child's life that negatively
impacts their wellbeing and
family relationships.

*1700 respondents nationwide



Astudiaeth Tyfu i Fyny yn Ddigidol

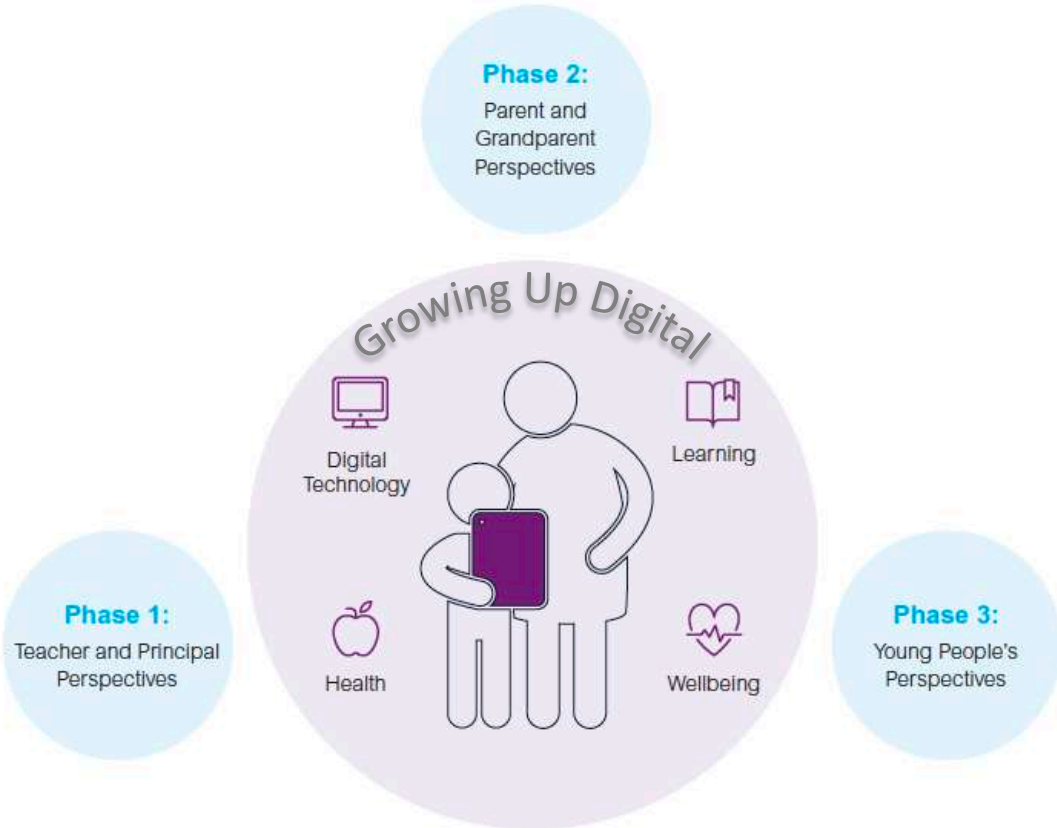
● ————— ●
Growing Up Digital Study

Cyn arolwg (2019)

Pre-Poll (2019)

Astudiaeth Tyfu i Fyny yn Ddigidol

Growing Up Digital Study



Partneriaid ymchwil

Research partners



Center on Media
and Child Health



HARVARD
MEDICAL SCHOOL



The Alberta
Teachers' Association



GONSKI INSTITUTE

Cam 1 vn Australia

Phase 1 in Australia



1876
respondents



48%
have more than **20 years**
teaching experience



73%
are female



48%
are teachers



31%
are principals



16%
are administrators



95%
work in primary
and secondary
schools



26%
work in rural,
remote and
regional schools

Cwestiwn Question

I ba raddau mae technolegau digidol yn gwella neu'n tynnu oddi ar ddysgu ac addysgu yn yr ysgol?

To what extent do digital technologies enhance or detract from teaching and learning in school?

+2

+1

0

-1

-2

Gwella'n sylweddol

Gwella

Niwtral

Tynnu oddi ar ddysgu

Tynnu oddi ar ddysgu yn sylweddol

Significantly enhance

Enhance

Neutral

Detract

Significantly detract

Prif ganfyddiadau (Cam 1): "Offeryn gwych yw technoleg..."

Key findings (Phase 1): "Technology is a great tool..."

43%

believe that digital technologies **enhance their teaching and learning activities**, rather than detract.



68%

believe that opportunities to facilitate inquiry-based learning are **enhanced by technology**.



Ffynhonnell: Growing Up Digital Australia (2020)
Source: Growing Up Digital Australia (2020)

Prif ganfyddiadau (Cam 1): "Offeryn gwych yw technoleg..."

Key findings (Phase 1): "Technology is a great tool..."

These examples provided by educators were innovative, diverse, inspiring and collaborative.



Recording reading sessions and watching them back to improve reading.

Pre-primary students engaging and skilfully using the Bloxels app to build a game.



Year One students' ability to use the Stop Motion app to create a simple movie after only one demonstration.



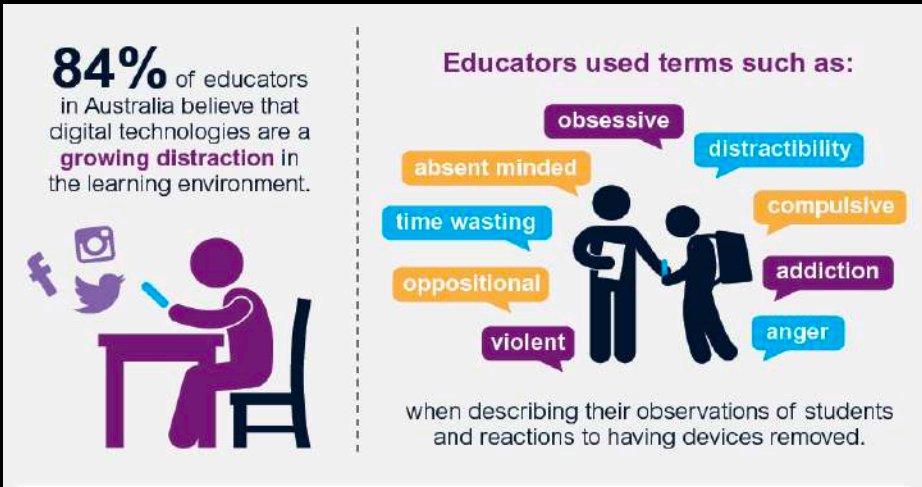
A group of students used google slides for a team project at home and during school showing team work and individual accountability.



The students made a podcast using multimedia technology. It was useful for students with learning disabilities.

Prif ganfyddiadau (Cam 1): "Ond mae'n wrthdyniad cynyddol."

Key findings (Phase 1): "But it is a growing distraction."



Ffynhonnell: Growing Up Digital Australia (2020)
Source: Growing Up Digital Australia (2020)

Prif ganfyddiadau (Cam 1):

Key findings (Phase 1):

Australian classrooms are becoming more complex places to teach and learn.

In the last 3-5 years, students with:



Emotional challenges
have increased
94%



Social challenges
have increased
93%



Behaviour problems
have increased
93%

Cognitive challenges
have increased
84%

Ffynhonnell: Growing Up Digital Australia (2020)
Source: Growing Up Digital Australia (2020)

Prif ganfyddiadau (Cam 1): “Nid yw myfyrwyr yn barod i ddysgu”

Key findings (Phase 1): “Students are not ready to learn”



59%

observed a **decline**
in students' overall
readiness to learn.

Prif ganfyddiadau (Cam 1): “Mae technolegau digidol yn cael effaith ar athrawon hefyd”

Key findings (Phase 1): “Digital technologies are affecting teachers as well”

2 in 3

say technology is a growing distraction in their life.



89%

aged 25 or younger agreed that digital **technology poses an increasing distraction.**



24%

felt they were addicted to digital technology, and this number increased to **61% aged 25 or younger.**

These results indicate that **younger educators** are most at risk of the **negative effects of technology** overuse.

Awstralia vs. Canada

Australia vs. Canada

ALBERTA

Alberta teachers have observed dramatic changes in their student populations over the past three to five years.

EMOTIONAL AND SOCIAL CHALLENGES



of teachers say that the number of students with emotional challenges has increased.



of teachers say that the number of students with social challenges has increased.

85%

of teachers say that the number of students who need behaviour support has increased.



“ Is a student's increasing online presence decreasing real-world satisfaction and positive peer-to-peer interaction? ”

— Elementary school teacher

MOOD DISORDERS

3 out of 4 teachers say that the number of students with cognitive challenges has increased.



STUDENT CHALLENGES

ANXIETY DISORDER 85%

DEPRESSION 73%

Alberta (2016) and Australia (2019)

Percentage of teachers who said that the number of students with challenges has increased:



Beth allwn ei wneud?



What can we do?

Nid oes un ateb syml i'r her gymhleth hon.

There is no single simple solution to this complex challenge.

1

Defnyddio tystiolaeth dda mewn trafodaethau er mwyn cael atebion gwell.

Use good evidence in conversations for better solutions.

2

Helpu plant i hunanreoleiddio wrth ddefnyddio dyfeisiau digidol a dod o hyd i gydbwysedd iachus o ran byw gyda nhw a hebbyn nhw.

Help children to self-regulate their use of digital gadgets and to find healthier balance to live with and without them.

3

Bod yn fodel rôl: Newidiwch eich harferion digidol eich hun!

Be a role model: Change your own digital habits!

More am ein hymchwil:

More about our research:

Gonski Institute (2020). Growing Up Digital Australia: Technical Report. UNSW Gonski Institute, 2020. <https://www.gie.unsw.edu.au/>

Graham, A. & Sahlberg, P. (2020). Schools are moving online, but not all children start out digitally equal. The Conversation, March 27. <https://theconversation.com/schools-are-moving-online-but-not-all-children-start-out-digitally-equal-134650>.

Sahlberg, P. & Graham, A. (2020). Teaching changing children in the changing times. Journal of Professional Learning, Semester 2. <https://cpl.asn.au/journal/semester-2-2020/teaching-changing-children-in-the-changing-times>

DIOLCH!
THANK YOU!



@pasi_sahlberg