ADOLESCENT MENTAL HEALTH AND THE INTERNET
Sexting, suicide and addiction - the children whose lives have been ruined by the Internet

Felix Alexander, who took his own life, age 17, after being relentlessly cyber bullied on social media.
Mental health problems among the young have risen six-fold since the rise of social media platforms.
Is social media causing childhood depression?

By Jane Wakefield
Technology reporter

© 10 February 2018
Social media is making children regress to mentality of three-year-olds, says top brain scientist

Baroness Susan Greenfield, a senior research fellow at Oxford University and former director of the Royal Institution of Great Britain, said she was concerned children were losing their ability to think for themselves, empathise and communicate with each other.
The trouble knowing how much screen time is 'too much'

By Amy O'Brien
University of Oxford

23 February 2016

Concerns about the harm caused by "too much" screen time - particularly when it is spent on social media - are widespread. But working out what a "healthy" amount might be is far from easy.
A DECADE OF SMARTPHONES: WE NOW SPEND AN ENTIRE DAY EVERY WEEK ONLINE
BY CHARLES HYMAS

THE AVERAGE PERSON IN THE UK SPENDS MORE THAN A DAY A WEEK ONLINE, ACCORDING TO A LANDMARK REPORT ON THE IMPACT OF THE “DECADE OF THE SMARTPHONE”. PEOPLE ARE ON AVERAGE ONLINE FOR 24 HOURS A WEEK, TWICE AS LONG AS 10 YEARS AGO, WITH ONE IN FIVE OF ALL ADULTS SPENDING AS MUCH AS 40 HOURS A WEEK ON THE WEB. THIS IS PARTLY DUE TO THE RISE IN USE BY THOSE AGED 16 TO 24, WHO AVERAGE 34.3 HOURS A WEEK ON THE INTERNET. AND FOR THE FIRST TIME WOMEN ARE SPENDING MORE TIME ONLINE THAN MEN, FUELLED BY A RISE IN INTERNET USE BY THOSE AGED 18 TO 34 AND THE EXPLOSION IN SOCIAL MEDIA. THEY SPEND HALF AN HOUR A WEEK LONGER ONLINE THAN MEN OF THE SAME AGE. OFCOM, WHICH COMPILED THE REPORT, ATTRIBUTES A LARGE PART OF THE SURGE IN TIME ONLINE TO THE RISE OF SMARTPHONES WHICH ARE NOW USED BY 78 PER CENT OF THE POPULATION COMPARED WITH JUST 17 PER CENT IN 2008, THE YEAR AFTER THE FIRST IPHONE WAS LAUNCHED. BRITONS ARE NOW SO ADDICTED TO THEM THAT THEY CHECK THEM EVERY 12 MINUTES.

THE REPORT, A DECADE OF DIGITAL DEPENDENCY, SAYS 40 PER CENT OF ADULTS LOOK AT THEIR PHONE WITHIN FIVE MINUTES OF WAKING UP, RISING TO 65 PER CENT OF THOSE AGED UNDER 35. AND 37 PER CENT OF ADULTS CHECK THEIR PHONES JUST BEFORE SWITCHING OFF THE LIGHTS FOR BED, INCREASING TO 60 PER CENT OF UNDER 35S. THE YOUNGER GENERATION IS THE MOST ADDICTED. THOSE AGED 15 TO 24 SPEND AN AVERAGE OF FOUR HOURS A DAY ON THE PHONE COMPARED WITH 2 HOURS 49 MINUTES FOR ALL ADULTS. THE YOUNG ALSO CHECK THEIR PHONES EVERY 8.6 MINUTES, MORE FREQUENTLY THAN ANY OTHER AGE GROUP. WHILE OFCOM HIGHLIGHTS BENEFITS SUCH AS KEEPING IN TOUCH WITH FAMILY, IT CITES STRESS AND DISRUPTION TO PERSONAL AND FAMILY LIFE. “SOME FIND THEMSELVES FEELING OVERLOADED WHEN ONLINE OR FRUSTRATED WHEN THEY ARE NOT,” SAID IAN MACRAE, DIRECTOR OF MARKET INTELLIGENCE.

FIFTEEN PER CENT SAID SMARTPHONES MADE THEM FEEL THEY WERE ALWAYS AT WORK, 54 PER CENT ADMITTED THEY INTERRUPTED FACE-TO-FACE CONVERSATIONS WITH FRIENDS AND FAMILY AND 43 PER CENT ADMITTED SPENDING TOO MUCH TIME ONLINE. MORE THAN A THIRD FELT STRESSED AND “CUT OFF” WITHOUT THEIR PHONE AND 29 PER CENT “LOST WITHOUT IT” – WHILE ONE IN 10 SAID THAT GIVING IT UP WAS “LIBERATING” OR MADE THEM MORE PRODUCTIVE. BUT PEOPLE TREASURE THEIR SMART PHONE MORE THAN ANY OTHER DEVICE. ALMOST HALF OF ADULTS SAID THEY WOULD MISS IT MORE THAN TV (28 PER CENT) AND A DESKTOP OR LAPTOP COMPUTER (10 PER CENT) – A REVERSAL OF A DECADE AGO, WHEN 52 PER CENT SAID THE TV WAS MORE IMPORTANT THAN THE MOBILE PHONE (13 PER CENT). AMONG 16 TO 24-YEAR-OLDS, 72 PER CENT NOW SAY THE SMARTPHONE IS THE DEVICE THEY WOULD MISS MOST. YET WE SPEND LESS TIME MAKING PHONE CALLS ON IT THAN EVER BEFORE. TOTAL OUTGOING CALLS ON MOBILES DROPPED BY 2.5 BILLION MINUTES (1.7 PER CENT) IN 2017 AS PEOPLE TURNED TO WHATSAPP AND MESSENGER. USING IT FOR PHONE CALLS IS ONLY CONSIDERED IMPORTANT BY 75 PER CENT OF SMARTPHONE USERS COMPARED WITH 92 PER CENT WHO SAY BROWSING THE WEB IS MORE IMPORTANT. IT HAS, HOWEVER, PROVOKED A HUGE DIVIDE AT MEALTIME, WHERE USING THE PHONE WAS DEEMED INAPPROPRIATE BY 72 PER CENT OF 18-34S AS AGAINST 90 PER CENT OF THOSE AGED OVER 55.

Put your phone down! How a growing backlash is calling out our terrible tech manners

How many times have you watched with distaste as a parent ignores their young child beside them while mindlessly scanning their phones? Yes, we’ve all spotted them at it, and yes, how we’ve sighed and tut-tutted.

Next question: how many times have your eyes been glued to your own mobile screen while ignoring those in the room with you? Come on, be honest now. Few among us can claim we’ve consistently avoided such conduct.

https://www.telegraph.co.uk/family/relationships/put-phone-growing-backlash-calling-terrible-tech-manners/
Children spend up to 10 hours a day 'mindlessly swiping' their mobiles, study finds

When the researchers played back the on-screen records to show the young people what they had been doing on their phones, the teenagers went into denial. "They said things like 'Oh, it's not normally this boring,' as if seeing it properly for the first time," said Mr De Iionno.

Researchers were shocked by the superficial way children 'wasted' hours scrolling through social media sites. Chris Ions.jpg
THE GOVERNMENT SHOULD ISSUE GUIDANCE TELLING PARENTS NOT TO GIVE SMARTPHONES TO UNDER 11S, A LEADING ROYAL COLLEGE PSYCHIATRIST HAS SAID.

DR JON GOLDIN, VICE CHAIRMAN OF THE ROYAL COLLEGE OF PSYCHIATRISTS' CHILD AND ADOLESCENT FACULTY, SAID OFFICIAL ADVICE NOT TO GIVE CHILDREN A SMARTPHONE UNTIL THE FIRST YEAR OF SECONDARY SCHOOL AT THE EARLIEST WOULD HELP PARENTS RESIST THEIR OFFSPRING'S DEMANDS.

HE ALSO WARNED THAT CHILDREN SHOULD SPEND NO MORE THAN TWO HOURS A DAY ON SOCIAL MEDIA AMID EVIDENCE DOING SO MAKES THEM MORE LIKELY TO BECOME DEPRESSED AND ANXIOUS.
Almost a fifth of young people aged 16 to 24 are so addicted to their smartphones that they spend more than seven hours a day online, new Ofcom data reveals.

The exclusive analysis for The Telegraph shows young people in that age bracket are twice as likely as the rest of the population to be online for what is equivalent to over two full 24-hour days a week.

The data also reveals a generational digital divide as just 1 per cent of over-65s and only 6 per cent of 55-64 year olds spend over 50 hours a week online, compared to the 18 per cent of 16-24 year olds, equivalent to more than 1.1m young people.

Ofcom provided the inter-generational breakdown of heavy users after revealing earlier this month that Britons are on average spending a day a week online and check their smartphones every 12 minutes.

Online experts expressed concern that such heavy use of phones, tablets and PCs could be having a negative impact on relationships, productivity and even mental health.

One in seven (15 per cent) of younger users admitted they were more productive when they lost access to the internet, and one in five (19 per cent) said they were less distracted. More than half admitted their devices interrupted face-to-face conversations with families and friends.
“I FEEL THAT AGE GROUP ARE AWARE OF THEIR DIGITAL DEPENDENCE AND ARE MAKING EFFORTS AND ATTEMPTS TO CUT DOWN,” SAID TANYA GOODIN, FOUNDER OF DIGITAL HEALTH CONSULTANCY TIME TO LOG OFF.

“IT IS NOT JUST ABOUT IT AFFECTING RELATIONSHIPS AND PRODUCTIVITY BUT ALSO MENTAL HEALTH. AN OXFORD UNIVERSITY STUDY LAST YEAR SHOWED SELF-REPORTED MENTAL WELLBEING PEAKED FOR 15-YEAR OLDS AT FOUR HOURS A DAY ON SCREENS. AFTER THAT FURTHER SCREEN TIME HAD A NEGATIVE EFFECT ON THEIR WELLBEING.”

FOR A GENERATION BORN AROUND THE TURN OF THE MILLENNIUM WHEN THE FIRST CAMERA PHONE WAS LAUNCHED AND SONY PLAYSTATION 2 WAS TAKING THE WORLD BY STORM, SMARTPHONES ARE THE MAIN MODE OF ACCESSING THE INTERNET.

EVEN THE OLDEST OF THE 16-24 YEAR-OLDS WERE JUST 13 WHEN THE IPHONE WAS LAUNCHED. NOW 95 PER CENT OF THAT AGE GROUP USE THEIR SMARTPHONE TO GO ONLINE, COMPARED TO 70 PER CENT OF ALL ADULTS AND JUST 22 PER CENT OF 65 TO 74-YEAR-OLDS.

YOUNG WOMEN APPEAR TO BE MORE ADDICTED TO THEIR SMARTPHONES THAN YOUNG MEN, WITH TEXTING (53 PER CENT), LOGGING ON TO SOCIAL MEDIA SITES (44 PER CENT) AND BROWSING THE WEB (34 PER CENT) THE MOST POPULAR ACTIVITY WHILE COMMUTING.
WOMEN AGED 16-24 YEARS OLD ON AVERAGE SPEND A FULL HOUR LONGER EACH DAY ON THEIR PHONES THAN MEN OF THE SAME AGE, FOUR HOURS A DAY COMPARED TO THREE BY THE MEN.

FOR ALL ADULTS, THE PROPORTION SPENDING OVER 40 HOURS ONLINE HAS QUADRUPLED, FROM 5 PER CENT TO 19 PER CENT SINCE THE IPHONE WAS LAUNCHED IN 2007. AMONG 16-24 YEAR OLDS, IT RISES TO 33 PER CENT. THREE-QUARTERS OF THE AGE GROUP SPEND MORE THAN A DAY A WEEK ONLINE.

THE YOUNG GENERATION IS MORE TOLERANT ABOUT USING SMARTPHONES DURING ACTIVITIES WITH FAMILY OR FRIENDS, WITH JUST 21 PER CENT SAYING IT IS UNACCEPTABLE WHILE WATCHING TV WITH OTHERS, COMPARED TO 41 PER CENT OF ALL ADULTS. HALF THOUGHT IT WAS ACCEPTABLE TO CHECK THEIR PHONE FOR NOTIFICATIONS DURING A MEAL COMPARED WITH JUST 17 PER CENT OF ALL ADULTS.

THERE ARE SIGNS, HOWEVER, OF A NASCENT BACKLASH AMONG THE YOUNG – JUST AS THERE IS A TANDEM DRIVE BY THE GOVERNMENT TO GET MORE OLDER PEOPLE ONLINE SO THEY CAN MORE EASILY ACCESS SERVICES AND CARE.

HOLD, A NORWEGIAN SOCIAL ENTERPRISE COMPANY, CLAIMS TO HAVE SIGNED UP 100,000 YOUNG BRITONS TO AN APP WHICH USES SIMILAR PSYCHOLOGY TO THE SOCIAL MEDIA GIANTS BY REWARDING STUDENTS FOR THE TIME THEY STAY OFF, RATHER THAN ON, THEIR PHONES. IN NORWAY, 125,000 STUDENTS USE IT.
THE REWARDS SUCH AS DRINKS, FOOD OR TRAVEL ARE PROVIDED BY SPONSORS OF THE COMPANY, WHICH HAS BEEN BACKED WITH £250,000 BY BRENT HOBERMAN, WHO WORKS WITH PRINCES WILLIAM AND HARRY TO COUNTER CYBER-BULLYING, AND HENRY LANE FOX, WHO WAS HIS CO-FOUNDER AT LASTMINUTE.COM.

KEITA ERIAWAN, 20, A STUDENT AT HULT INTERNATIONAL BUSINESS SCHOOL IN LONDON, SAID HE DOWNLOADED THE APP BECAUSE OF HIS FRUSTRATION THAT HIS HABIT OF CONSTANTLY CHECKING HIS PHONE WAS DISTRACTING HIM FROM HIS STUDIES.

HE SAID IT HELPED HIM BECOME AWARE OF HOW MUCH TIME HE WASTED: “I USED TO CHECK MY PHONE EVERY FIVE MINUTES FOR SOCIAL MEDIA AND FOOTBALL UPDATES. THAT WOULD BE OVER EIGHT TO NINE HOURS A DAY. NOW I WOULD SAY IT’S ABOUT HALF THAT TIME.”

BY CONTRAST, MARTIN LOCK, CHIEF EXECUTIVE OF SILVERSURFERS, SAID HE EXPECTED A SHARP INCREASE IN OLDER PEOPLE’S TIME ON THE INTERNET IN COMING YEARS AS THE GOVERNMENT TOOK MORE SERVICES ONLINE AND MORE TECH-SAVVY MIDDLE-AGED USERS GOT OLDER.

MARGIE SAVORY, 69, A FORMER TV PRODUCER FROM BRIDPORT, ADMITS SHE IS ADDICTED TO HER PHONE, USING IT TO KEEP IN CONTACT WITH FAMILY AND FRIENDS, AND UP TO DATE WITH COMMUNITY NEWS. “I USE IT TO KEEP IN TOUCH, THROUGH FACEBOOK, WHATSAPP, INSTAGRAM AND TWITTER,” SHE SAID.

“WE HAVE A WHATSAPP GROUP WITH NEIGHBOURS WHO ARE OLDER THAN ME WHERE WE CAN SEND EACH OTHER PICTURES IF WE DO SOMETHING FUN OR ARE ON HOLIDAY. WE KEEP AN EYE ON EACH OTHER’S GARDENS WHEN WE ARE AWAY.”

THE ONLY DOWNSIDE, SHE ADMITTED, WAS THAT HER HUSBAND CHRIS, 56, “DIDN’T LIKE IT” WHEN SHE USED HER PHONE WHEN WATCHING TV.
1% have their own smartphone, 21% have their own tablet.

96% watch TV on a TV set, for around 15h a week

41% watch TV on other devices, mostly on a tablet

40% play games, for nearly 6h a week.

53% go online, for nearly 8h a week.

71% of these mostly use a tablet to go online.

48% use YouTube, of which 52% of these say cartoons are their favourite thing to watch, 15% say unboxing videos.

0% have a social media profile.

5% have their own smartphone, 35% have their own tablet.

95% watch TV on a TV set, for around 13½h a week

49% watch TV on other devices, mostly on a tablet

66% play games, for nearly 7½h a week.

79% go online, for around 9h a week.

63% of these mostly use a tablet to go online.

71% use YouTube, of which 30% say cartoons are their favourite thing to watch, 18% say funny videos or pranks.

3% have a social media profile.

The TV set is the device they say they would miss the most.
8-11s

39% have their own smartphone, 52% have their own tablet.

95% watch TV on a TV set, for nearly 14h a week.

55% watch TV on other devices, mostly on a tablet.

81% play games, for around 10h a week.

94% go online, for nearly 13½h a week.

46% of these mostly use a tablet to go online, 22% a mobile.

81% use YouTube, of which 23% say funny videos or pranks are their favourite thing to watch, 18% say music videos.

23% have a social media profile.

The TV set or tablet are the devices they would miss the most.

12-15s

83% have their own smartphone, 55% have their own tablet.

91% watch TV on a TV set, for nearly 14½h a week.

68% watch TV on other devices, mostly a tablet or mobile.

77% play games, for around 12h a week.

99% go online, for nearly 21h a week.

49% of these mostly use a tablet to go online, 26% mostly use a mobile.

90% use YouTube, of which 26% say music videos are their favourite thing to watch, 23% say funny videos or pranks.

74% have a social media profile.

Their mobile phone is the device they would miss the most.
BRAIN REMODELLING DURING ADOLESCENCE

- HTTPS://WWW.YOUTUBE.COM/WATCH?V=D1SMDB5ZFIQ
BRAIN REMODELLING DURING ADOLESCENCE

• HTTPS://WWW.YOUTUBE.COM/WATCH?v=MHS7VLCWRXY
BRAIN REMODELLING DURING ADOLESCENCE

• BRAIN MATTER INCREASES DURING CHILDHOOD UNTIL ABOUT 12 YEARS OLD
• NEURAL CONNECTIONS STRENGTHEN WHILE UNUSED BRAIN MATTER IS ‘PRUNED’ BETWEEN THE AGES OF ABOUT 12 TO 18
• THE WHOLE PROCESS OF BRAIN REMODELLING IS COMPLETE BY AROUND 25
• THE HABITS LAID DOWN DURING ADOLESCENCE THEREFORE AFFECT BRAIN STRUCTURE FOREVER
BRAIN REMODELLING DURING ADOLESCENCE

• HTTPS://WWW.YOUTUBE.COM/WATCH?V=Y8S04TQUES
BRAIN REMODELLING DURING ADOLESCENCE

• TECHNOLOGY USE IS PERMANENTLY REMODELLING ADOLESCENT BRAINS
The brain’s reward pathway

Dopamine Pathways

Functions
- Reward (motivation)
- Pleasure, euphoria
- Motor function (fine tuning)
- Compulsion
- Perseveration
MEASURABLE DOPAMINE LEVELS VS TIME

- Normal Individual
- With Addiction
- Normal Resting Levels
- Adolescent Resting Levels

The diagram illustrates the process of dopamine release and uptake in synapses. Dopamine is synthesized from tyrosine and moves from vesicles to the synaptic cleft. Dopamine receptors on the receiving cell facilitate the message transmission back to the cell nucleus.
The design tricks that get you hooked on your phone

Feel like you have to always use your phone?

You're not the only one - technology companies use psychological tricks to get you hooked to your phone.

James Reeve explains.

14 Apr 2016
IGEN TEENS BBC NEWS REPORT

In No Rush to Drive

Percentage of 12th-graders who drive

- Drove at all in the past year
- Have a driver’s license

2007 – iPhone released

12TH GRADE – YEAR 13
10TH GRADE – YEAR 11
8TH GRADE – YEAR 9
More Likely to Feel Lonely

Percentage of 8th-, 10th-, and 12th-graders who agree or mostly agree with the statement “I often feel left out of things” or “A lot of times I feel lonely”

- Often feel left out
- Often feel lonely

2007 – iPhone released

12th Grade – Year 13
10th Grade – Year 11
8th Grade – Year 9
Less Likely to Get Enough Sleep

Percentage of 8th-, 10th-, and 12th-graders who get less than seven hours of sleep most nights


25% 30% 35% 40% 45%

2007 – iPhone released

12th Grade – Year 13
10th Grade – Year 11
8th Grade – Year 9
VICTORIA PROODAY RESEARCH

SINCE ADVENT OF THE ‘SMART-PHONE’

• 1 IN 5 CHILDREN HAS MENTAL HEALTH PROBLEMS
• 43% INCREASE IN ADHD
• 37% INCREASE IN TEEN DEPRESSION
• 200% INCREASE IN SUICIDE RATE IN CHILDREN 10-14 YEARS OLD
ADDICTION TO TECHNOLOGY

- HTTPS://WWW.YOUTUBE.COM/WATCH?v=WCT5JCCXMPW
- HTTPS://WWW.YOUTUBE.COM/WATCH?v=HNNCDDW31
Excessive internet use linked to depression, research shows

Leeds University study finds people classified as internet addicts are more likely to be depressed than non-addicted users.

British psychologists have found evidence of a link between excessive internet use and depression, research published today has shown.

Leeds University researchers, writing in the Psychopathology Journal (abstract)
'Internet addiction' linked to depression, says study

There is a strong link between heavy internet use and depression, UK psychologists have said.

The study, reported in the journal Psychopathology, found 12.6% of people surveyed were 'internet addicts', and many of these were depressed.

The Leeds University team stressed they could not say one necessarily caused the other, and that most internet users did not suffer mental health problems.

The conclusions were based on 1,219 responses to an on-line questionnaire.

Recruitment was via links on social networking sites. People were asked how much they used the internet and for what purposes.

They were also asked a series of questions to assess whether they suffered from depression.

The respondents were aged 16 to 51, with an average age of 21.

The authors found that a small number of users had developed a compulsive internet habit, replacing real life social interaction with online chat rooms and social networking sites.

They classed 18 respondents - 1.2% of the total - as "internet addicts".
THE INTERNET CAN BE BAD FOR CHILDREN’S MENTAL HEALTH
ADDICTION TO TECHNOLOGY

• Dopamine response is the same for technology
• Instant response changes the brain’s response so it becomes desensitised to less instantaneous responses
• Instant response means that the brain doesn’t learn to focus and retain information
• Instant response makes it harder to gain satisfaction from non-instantaneous stimuli
MENTAL HEALTH

A SURVEY FOUND THAT PEOPLE WHO USE THE INTERNET MORE CAN ALSO HAVE MORE MENTAL HEALTH PROBLEMS. THE FINDINGS WERE PRESENTED AT THE 29TH EUROPEAN COLLEGE OF NEUROPSYCHOPHARMACOLOGY (ECNP) CONFERENCE IN VIENNA.

“INDIVIDUALS WITH INTERNET ADDICTION ... HAD SIGNIFICANTLY HIGHER AMOUNTS OF DEPRESSION AND ANXIETY SYMPTOMS, PROBLEMS WITH PLANNING AND TIME MANAGEMENT, GREATER LEVELS OF ATTENTIONAL IMPULSIVITY AS WELL AS ADHD SYMPTOMS,”
MENTAL HEALTH

INTERNET ADDICTION LACKS MANY OF THE PHYSICAL SYMPTOMS LINKED TO DRUG OR ALCOHOL ADDICTION, ADOLESCENTS CAN STILL DEVELOP A PSYCHOLOGICAL DEPENDENCE ON ONLINE ACTIVITIES.

WHEN THEIR ACCESS TO THE INTERNET IS CUT OFF FOR ANY REASON, THEY CAN EXPERIENCE A FORM OF WITHDRAWAL AS WELL AS BEING UNABLE TO FUNCTION NORMALLY WITHOUT REGULAR ONLINE CONTACT.

RESEARCHERS HAVE ALSO LINKED COMPULSIVE INTERNET USE TO A RANGE OF MENTAL HEALTH CONCERNS INCLUDING LOW SELF-ESTEEM, LONELINESS, DEPRESSION, SOCIAL PHOBIA, AND EVEN SUICIDAL THOUGHTS.
ONLINE GAMING

TOP 10 ONLINE GAME OPERATORS IN ASIA EARNED OVER $2BN LAST YEAR

WEB GAMES:

- WORLD OF WAR CRAFT
- MINECRAFT
- CALL OF DUTY (COD)

GAMES CONSOLES (XBOX 360, PLAYSTATION 3, WII)
Gaming addiction classified as disorder by WHO

By Jane Wakefield
Technology reporter

The draft document describes it as a pattern of persistent or recurrent gaming behaviour so severe that it takes “precedence over other life interests”.

Some countries had already identified it as a major public health issue.

Many, including the UK, have private addiction clinics to “treat” the condition.

The last version of the ICD was completed in 1992, with the new guide due to be published in 2018.

The guide contains codes for diseases, signs and symptoms and is used by doctors and researchers to track and diagnose disease.

It will suggest that abnormal gaming behaviour should be in evidence over a period of at least 12 months “for a diagnosis to be assigned” but added that period might be shortened “if symptoms are severe”.

Symptoms include:

- impaired control over gaming (frequency, intensity, duration)
- increased priority given to gaming
- continuation or escalation of gaming despite negative consequences

Dr Richard Graham, lead technology addiction specialist at the Nightingale Hospital in London, welcomed the decision to recognise the condition.

“It is significant because it creates the opportunity for more specialised services. It puts it on the map as something to take seriously.”

But he added that he would have sympathy for those who do not think the condition should be medicalised.

“It could lead to confused parents whose children are just enthusiastic gamers.”

He said he sees about 50 new cases of digital addiction each year and his criteria
Should you limit your children's time on Fortnite

Some parents have contacted BBC 5 live to say they are concerned about the amount of time their children are spending playing the video game Fortnite.

Speaking to Anna Foster, gaming journalist Keith Stuart discussed whether they should intervene.

© 12 Mar 2018

is the fact that you don’t just play.

f  t  c  m  Share
5 things we’ve learnt about Fortnite

BBC Radio 5 live’s Anna Foster has been exploring the latest video game craze ‘Fortnite’. Launched as a video game last summer, it’s in the couple of months its popularity has sky-rocketed; it’s now being played by hundreds of millions of people all over the world and seems to be dominating classroom conversations in the UK.

Guardian journalist Keith Stuart describes it as ‘Call of Duty with the plot of The Hunger Games’ - a cartoon shooting game where the aim is to be the last character standing.
How the design of video games like Fortnite makes them more addictive

During the FA Cup semi-final between Manchester United and Spurs in April Dele Alli scored the first goal in the game his side would eventually lose 2-1.

As the England international jubilantly jogged over to the Tottenham fans he broke into a somewhat goofy dance swinging his hips left and right while thrusting his arms in front and behind his torso.

For many adults watching the moment seemed to be nothing more than a victory dance but for young children, like the newsroom's own children, it was an example of what video games were designed to do.
How does gaming affect your brain?

Harrieth loves playing the video-game Fortnite, but does his brain show signs of addiction?

He and his brother Noah had their brains scanned while playing

Gaming addiction has been linked as a mental health condition for the first time by the World Health Organisation. Here are some tips for playing healthy and enjoying gaming.

Watch the BBC’s Victoria Derbyshire programme on weekdays between 09:00 and 11:30 on BBC Two and the BBC News Channel in the UK.
Gaming addiction 'a mental health condition' 

For millions, it is a harmless hobby but for some it can become more than that.

Scott

17 June 2018
More teens 'addicted' to computer games

A British rehabilitation centre says it has seen a dramatic rise in the number of patients seeking help for teenagers with so-called gaming addiction.
ONLINE GAMING

HIGHLY ADDICTIVE – MANY REAL PEOPLE FROM ALL OVER THE WORLD PLAY THE SAME GAME, WORKING IN SYNDICATES ON MISSIONS WHICH USUALLY LAST 3-4 HOURS AT A TIME.

AN AVERAGE MMORPG (MASSIVELY MULTIPLAYER ONLINE ROLE-PLAYING GAME) PLAYER SPENDS 21 HOURS A WEEK PLAYING THE GAME.

IT HAS BEEN LINKED TO TRUANCY, EXHAUSTION AND EVEN SUICIDE. PLAYERS OFTEN PLAY INTO THE EARLY HOURS OF THE MORNING.
ADDICTIVE GAMING

• DOPAMINE RESPONSE TO:
  • GAMING OUTCOMES
  • SOCIAL INTERACTION ONLINE
• DOPAMINE RESPONSE IS HEIGHTENED AND LEADS TO THE SAME EFFECT AS DRUGS
• INSTANT RESPONSE ISSUES HERE TOO
• PEER PRESSURE
• STRUCTURE OF GAMES ETC.
Felix Alexander death: Worcester mum's open letter against cyberbullying

6 October 2016

The mother of a teenager who took his life because of online bullying has urged others not to ignore the issue.

Lucy Alexander, from Worcester, wrote an open letter appealing for "children to be kind ALWAYS and never stand by and leave bullying unreported".
Excessive social media use harms children’s mental health

Children who go on social networking sites like Facebook, Twitter and Instagram for more than three hours a day are more likely to have mental health problems, a study has shown.

Girls are more likely than boys to spend a lot of time on social media. Photo: Alamy

By Sophie Jamieson
5.45PM BST 20 Oct 2015

Children who spend more than three hours each school day on social media sites like Facebook and Twitter are more than twice as likely to suffer poor mental health, official figures have shown.
Ask children about social media use, psychiatrists urged

Psychiatrists are being urged to ask children with mental health issues how long they spend online and what they use social media for.

Questions about technology should be a routine part of assessments, the Royal College of Psychiatrists says.

https://www.bbc.co.uk/news/health-47749964
Secondary school starters 'unprepared' for social media

England's children's commissioner says children need help to navigate social media once they move up to secondary school. Do young people agree?
Is social media causing childhood depression?

By Jane Wakefield
Technology reporter

© 10 February 2016

Rangan Chatterjee is a GP and says he has seen plenty of evidence of the link between mental ill-health in youngsters and their use of social media.

• [HTTP://WWW.BBC.CO.UK/NEWS/TECHNOLOGY-42705881](HTTP://WWW.BBC.CO.UK/NEWS/TECHNOLOGY-42705881)
FOMO: How the Fear of Missing Out drives social media 'addiction'

1 March 2017

Social media can help bring people closer together and share information.

But the endless stream of updates, invites and opportunities to gain the explicit approval and feedback of friends and family, can create a pressure of its own.

• HTTP://WWW.BBC.CO.UK/NEWS/TECHNOLOGY-39129228
Social media 'exacerbates' young mental health problems

Social media is distorting children's grasp of reality and impacting on their mental health, a support teacher has said.

It is one of the issues schools face as they try to spot early signs of problems among pupils.

A £1.4m trial has been launched where NHS staff will offer specialist help in schools to those showing early signs of anxiety, depression or self-harm.

The two-year Welsh Government trial will take place across north east, south east Wales and Ceredigion.

Carol Phillips, student support officer at Crickhowell High School in Powys highlighted the role social media has played.

25 Sep 2017
'It's a presentation of people's lives - not reality'

Instead of quitting Facebook, he made a film showing that people aren't what they seem to be online.

It highlights the damaging effect of social media on mental health.
Instagram: Will quitting make me happy?

Nicole and Talli are Instagram besties. But the pressure to get more likes and followers is taking its toll.

Both friends are thinking of quitting the Insta-game but is leaving it the quick fix everyone says it is?

UK users can watch more films from the BBC Like Minds series on iPlayer.

Produced by Alvaro Alvarez, Naomi Paillas and Camila Ruiz

17 Feb 2019
SOCIAL MEDIA

- **DOPAMINE RESPONSE TO:**
  - 'LIKES'
  - COMMENTS
  - SOCIAL INTERACTION ONLINE

- **DOPAMINE RESPONSE IS HEIGHTENED AND LEADS TO THE SAME EFFECT AS DRUGS**

- **IMAGES PRESENT A PARTICULAR PICTURE WHICH IMPLIES THAT WHAT IS SHOWN VIA SOCIAL MEDIA REFLECTS THE TRUTH**
  - IMAGES ARE CAREFULLY CHOSEN TO LOOK GOOD
  - IMAGES DON'T SHOW THE MUNDANE
  - INDIVIDUALS' SELF WORTH BECOMES ASSOCIATED WITH ACTIVE RESPONSES – NO ABILITY TO SEE SMILES ETC.
The longer a teenager spends using electronic devices such as tablets and smartphones, the worse their sleep will be, a study of nearly 10,000 16- to 19-year-olds suggests.
Half of teenagers sleep deprived, say experts

By Eleanor Bradford
BBC Scotland Health Correspondent

Half of all teenagers may be sleep deprived, according to experts. A combination of natural hormone changes and greater use of screen-based technology means many are not getting enough sleep.

Research has suggested teenagers need nine hours' sleep to function properly.

"Sleep is fundamentally important but despite this it's been largely ignored as part of our biology," said Russell Foster, Professor of Circadian Neuroscience at Oxford University.

"Within the context of teenagers, here we have a classic example where sleep could enhance enormously the quality of life, and indeed, the educational performance of our young people. Yet they're given no instruction about the importance of sleep and sleep is a victim to the many other demands that are being made of them."

'All-nighters' at one level up, an internet cafe and gaming centre in Glasgow, I found a group of young people who are used to very late nights.

"There's things called 'grinds' which we have on Saturdays which are an all-nighter until 10 in the morning," said 17-year-old Jack Barclay.

"We go home, sleep till 8PM at night and then do the exact same thing again. I like staying up."

Fourteen-year-old Rachel admitted occasionally falling asleep in class because she stayed up late at night playing computer games.

"If it's a game that will save easily I'll go to bed when my mum says, 'OK you should probably get some rest', but if it's a game where you have to go to a certain point to save I'll be like, 'five more minutes!' and then an hour later 'five more minutes!', and it does mess up your sleeping pattern."

"For me it takes me about an hour to get to sleep and I'm lying there staring into nothing thinking 'I'm going to play that part of the game tomorrow and I'm going to play that part of the game the next day."

Hormonal changes research has shown that teenagers naturally veer towards later bedtimes and are later to rise in the morning, possibly because of the hormonal changes that occur during puberty.

However Prof Foster said electronic equipment accentuated this natural night-owl behaviour.

The data that's emerging suggests that these computer screens and gaming devices may well have a big effect in increasing levels of alertness.

"That will make it harder to get to sleep after you've stopped playing."

"The great problem with teenagers is that you're not only biologically programmed to go to bed late and get up late, but there's also many attractions like gaming and Facebook and texting and many teenagers are doing this into the early hours of the morning and delaying sleep even further."

Psychologist Jane Ansell set up the charity Sleep Scotland to help children with special needs establish good sleeping patterns.

However an increasing amount of the charity's workload is now spent working in mainstream schools with teenagers.

"People were being sent to me and were generally being diagnosed with Aspergers, and a lot were being diagnosed as ADHD," she said.

"I felt the first thing we had to do was to work out a sleep programme for them so that they weren't sleep deprived. Once they weren't sleep deprived, some no longer had ADHD symptoms because the symptoms of hyperactivity and sleep deprivation are pretty similar."

"I'm not saying they were all free of ADHD but it is a common mistake."

Pilot studies her pilot studies in three Scottish schools suggested 52% of teenagers were sleep deprived, and about 20% reported falling asleep in class at least once in the last two weeks.

While many teenagers have received exam grades over the summer, Ms Ansell said most of them did not realise that a healthy sleeping pattern could have improved their performance.

"We have probably not understood how important sleep is. It affects your growth, and especially things like memory consolidation. If you don't have enough sleep your short term memory doesn't consolidate into your long term memory which is going to affect your school grades."
Cyan colour hidden ingredient in sleep

By Sean Coughlan
BBC News education and family correspondent

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The researchers say cyan could be added or taken away to prevent or encourage sleep.

The colour cyan - between green and blue - is a hidden factor in encouraging or preventing sleep, according to biologists.

University of Manchester researchers say higher levels of cyan keep people awake, while reducing cyan is associated with helping sleep.

The impact was felt even if colour changes were not visible to the eye.
TECHNOLOGY USE AND SLEEP

- The body has a natural ‘day-night’ cycle called a ‘circadian rhythm’.

- Circadian rhythms happen because of a natural cycle and flow of gene expression (reading DNA and creation of appropriate proteins etc.)

- It is regulated by:
  - Timing to go through the whole cycle (approximately 24 hours)
  - Physical or mental tiredness
  - Light patterns which can act as a ‘reset’ point.

- Circadian rhythm regulates:
  - Sleep wake cycles
  - Hunger and metabolism
  - Hormone production (and therefore mood etc.)

- When the three elements which regulate this are out of sync it can lead to:
  - Depression
  - Tiredness
  - Obesity
  - Poor cognitive function
TECHNOLOGY USE AND SLEEP

- Blood levels of the hormone melatonin are high at night and low during the day.
- Its secretion is regulated by a rhythm-generating system located in the hypothalamus.
- This system is regulated by light.
- Light at the red end of the spectrum (found at night with sunset) stimulates melatonin secretion and encourages sleep.
- Light at the blue end of the spectrum (found more in the mornings with dawn) suppresses melatonin secretion and discourages sleep.
- LCD screens produce light at the blue end of the spectrum, mimicking day time light and disrupting sleep patterns.
TECHNOLOGY USE AND SLEEP

- According to the NHS lack of sleep is associated with:
  - Fatigue
  - Short temper
  - Lack of focus
  - Difficult to concentrate and make decisions
  - Depression and anxiety
  - Obesity - sleep-deprived people have reduced levels of leptin (the chemical that makes you feel full) and increased levels of ghrelin (the hunger-stimulating hormone).
  - Heart disease
  - High blood pressure
  - Type 2 diabetes - changes the way the body processes glucose – the high-energy carbohydrate that cells use for fuel.
  - Damages immunity
  - Decreases libido
  - Decreased fertility – reduces the secretion of reproductive hormones.
Limiting children’s recreational screen use has been linked with improved cognition. Children aged eight to 11 who used screens for fun for less than two hours a day performed better in tests of mental ability, a study found.

Combining this with nine to 11 hours of sleep a night was found to be best for performance.

Researchers said more work was now needed to better understand the effects of different types of screen use.

However, they acknowledge that their observational study shows only an association between screen time and cognition and cannot prove a causal link.

And it did not look at how children were using their screen time, be it to watch television, play videogames or use social media.

The study, of 4,500 US children, published in the Lancet Child & Adolescent Health journal, used questionnaires to estimate the child’s:

- Physical activity
- Sleep
- Recreational screen time

Children also completed a test, which assessed cognitive skills, including:

- Language
- Memory
- Attention

The study controlled for:

- Household income
- Parental and child education
- Ethnicity
- Pubertal development
- Body mass index (BMI)
- Traumatic brain injury

It found that children who each day had less than two hours of recreational screen time, got nine to 11 hours of sleep, and did at least one hour of physical activity performed better than who did none of these.

Less than two hours of screen time a day was the one factor most linked to better performance in the test.

Dr Jeremy Walsh, from the CHEO research institute, in Ottawa, Canada, said: “Based on our findings, paediatricians, parents, educators, and policymakers should promote limiting recreational screen time and prioritising healthy sleep routines throughout childhood and adolescence.”

Dr Walsh added that more research was now needed into the links between screen time and cognition, including studying the effects of different types of screen time.

He said there was some evidence, for example, that video games and educational TV programmes might have cognitive benefits.

In contrast, emerging evidence suggested the use of mobile devices and social media may be harmful for attention, memory and impulse control, he said.

However, the authors acknowledged there were limitations to their study, including that the data was self-reported.

The questionnaires were also only used only at the beginning of the study and so did not track how behaviours may change over time.

Dr Kirsten Corder, senior investigator scientist at the University of Cambridge, who was not involved in the study, said it added to existing evidence showing potential negative links with screen time and cognitive development in children.

But she pointed out that the children may have struggled to answer the questions accurately.

Dr Corder also said further work was needed to develop more accurate ways to assess the effects of screen time in detail.

“These results will hopefully stimulate further research using techniques that allow researchers to explore how multiple behaviours may interplay to benefit cognition and health,” she said.
ATTENTION AND LEARNING

• Learning is harder when information is easily accessible. The association and the consequent synapse formation is weak and often transitory. Therefore, overreliance on instantaneous responses means that knowledge doesn’t get it stored in long term memory.

• HTTPS://WWW.YOUTUBE.COM/WATCH?v=CKAWJ72X1RI
Bought your child a new device? Here's how to protect their mental health

Naomi Greenaway, deputy editor, Stella Magazine

Stick to this one rule
“IT should be switched off in the evening and charged downstairs, not in bedrooms” Turn off 30-60 minutes before lights out.

Have these conversations
From sexting to FOMO, it’s good to talk. [Be] honest about our own feelings… [be] non-judgemental and supportive… Be proactive rather than reactive: bust the myths of Instagram perfection before they sign up, talk about sexting before they have a serious boyfriend or girlfriend and discuss FOMO before they hit the peak socialising years. ‘Research has found that teens who have a more satisfactory relationship with their parents are less susceptible to FOMO.’

Focus on their offline lives
‘Encourage balance in their lives;’ …any activities that boost self-esteem offline, will be mirrored online. ‘Higher self-esteem makes them less likely to be adversely affected by any negatives in their online lives.’

Don’t go 007 on social media
Should you follow your kids on social media and check their phones? ‘Lots of kids feel comforted by that…’ But going undercover, is a big no. ‘The whole principle of the parent-child relationship is trust, so snooping can do much more damage than good. They could end up creating secret accounts, change passwords or get a second phone.’ If you have serious concerns, ask for access.

Find the screen-time sweet spot
We know too much can increase irritability, hyperactivity, aggression and even depression, but how much is too much? ‘A certain amount of screen time may be positive for well-being – enabling communication, creativity and engagement. But too much becomes negative. It’s called the goldilocks effect.’ According to Prof Jean Twenge, author of a landmark study on this topic, the sweet spot is one hour per day for children aged two to five and similar limits – perhaps up to two hours – for school-aged children and adolescents.

Lower their dependency
‘Part of the way to handle screen time with less dependency is for children to earn it’. That can be through chores, homework or music practice, but should also be linked to behaviour. ‘You get a lot of dopamine from electronics, which is why it’s so easy to become dependent on them. But when you get a dopamine hit without having to earn it, your brain processes the activity in the reptilian part of the brain, and it’s more addictive.’

Sign on the dotted line
Decide boundaries together, then write a contract, sign it and hang it on the fridge so it doesn’t get forgotten … ‘Managing your and your child’s expectations will reduce conflict and help them to form healthy habits. Consider time limits and switch-off times at night, designated screen-free times in the week and zones in the house, guidelines around who they accept as “friends” on social media, what pictures they post and websites that may be out of bounds. Deciding these guidelines together will help them have a more positive digital experience.’ She adds, ‘it’s important for parents to commit to good habits, too. If you decide that dinner times should be phone-free, set the right example.’