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Social websites harm children's brains: Chilling warning to parents from top neuroscientist

By [David Derbyshire](#)

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Social networking websites are causing alarming changes in the brains of young users, an eminent scientist has warned.

Sites such as Facebook, Twitter and Bebo are said to shorten attention spans, encourage instant gratification and make young people more self-centred.

The claims from neuroscientist Susan Greenfield will make disturbing reading for the millions whose social lives depend on logging on to their favourite websites each day.



Facebook founder and CEO Mark Zuckerberg. The popular website has made him a very rich man, but at what cost to human relationships?

But they will strike a chord with parents and teachers who complain that many youngsters lack the ability to communicate or concentrate away from their screens.

More than 150million use Facebook to keep in touch with friends, share photographs and videos and post regular updates of their movements and thoughts.

A further six million have signed up to Twitter, the 'micro-blogging' service that lets users circulate text messages about themselves.

But while the sites are popular - and extremely profitable - a growing number of psychologists and neuroscientists believe they

may be doing more harm than good.

Baroness Greenfield, an Oxford University neuroscientist and director of the Royal Institution, believes repeated exposure could effectively 'rewire' the brain.



Experts are concerned children's online social interactions can 'rewire' the brain

Computer games and fast-paced TV shows were also a factor, she said.

'We know how small babies need constant reassurance that they exist,' she told the Mail yesterday.

'My fear is that these technologies are infantilising the brain into the state of small children who are attracted by buzzing noises and bright lights, who have a small attention span and who live for the moment.'

Her comments echoed those she made during a House of Lords debate earlier this month. Then she argued that exposure to computer games, instant messaging, chat rooms and social networking sites could leave a generation with poor attention spans.

'I often wonder whether real conversation in real time may eventually give way to these sanitised and easier screen dialogues, in much the same way as killing, skinning and butchering an animal to eat has been replaced by the convenience of packages of meat on the supermarket shelf,' she said.

Lady Greenfield told the Lords a teacher of 30 years had told her she had noticed a sharp decline in the ability of her pupils to understand others.

'It is hard to see how living this way on a daily basis will not result in brains, or rather minds, different from those of previous generations,' she said.

She pointed out that autistic people, who usually find it hard to communicate, were particularly comfortable using computers.

'Of course, we do not know whether the current increase in autism is due more to increased awareness and diagnosis of autism, or whether it can - if there is a true increase - be in any way linked to an increased prevalence among people of spending time in screen relationships. Surely it is a point worth considering,' she added.

Psychologists have also argued that digital technology is changing the way we think. They point out that students no longer need to plan essays before starting to write - thanks to word processors they can edit as they go along. Satellite navigation systems have negated the need to decipher maps.

A study by the Broadcaster Audience Research Board found teenagers now spend seven-and-a-half hours a day in front of a screen.

Educational psychologist Jane Healy believes children should be kept away from computer games until they are seven. Most games only trigger the 'flight or fight' region of the brain, rather than the vital areas responsible for reasoning.

Sue Palmer, author of *Toxic Childhood*, said: 'We are seeing children's brain development damaged because they don't engage in the activity they have engaged in for millennia.'

'I'm not against technology and computers. But before they start social networking, they need to learn to make real relationships with people.'



Professor Susan Greenfield: Concerned

Comments (150)

It is a scientifically proven fact that the brains of children (and that includes those of high school age) are neurologically "soft," meaning they are still quite vulnerable to developmental disruptions due to environmental factors such as the presence or absence, or even the super-abundance, of selected stimuli. A large body of evidence (dating back to Maslow) shows that sensory disruptions such as a lack of touch, absence of a mother or father (and the developmental sensory stimulation they provide for the developing brain) can and indeed do result in neurodevelopmental disorders such as ADD, ADHD, as well as personality disorders, antisocial and criminogenic behavior, and so on. These are not matters to be ignored in a civilized society. Computer games train children to practice violence through a scientifically proven process called systematic desensitization, used to in video games to train soldiers to kill. Those who scoff at these issues are either ignorant fools or worse.

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- Dr Max Hatchcoat, Denver, CO, USA, 24/2/2009 08:12

I was immunized as a child, enjoy television and movies (to a reasonable degree), and have a facebook account I update regularly. And I am not autistic, retarded, dim-witted, or a misanthrope. I agree with Rollo. This woman is just flaunting her academic credentials to support a tenuous link between two unrelated things.

Click to rate Rating 2

- dan, mons, belgium, 24/2/2009 08:04