Book Review

The Tech Assault on Pedagogy

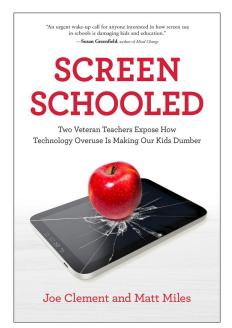*Screen Schooled: Two Veteran Teachers Expose How Technology Overuse Is Making Our Kids Dumber*

Reviewed by **Richard House**

Actual evidence presented by real social scientists overwhelmingly favors the conclusion that digital technologies are bad for kids in almost every conceivable way.... The new digital world is a toxic environment for the developing minds of young people.... It has stunted their mental growth. (pp. 22–3)

The sub-title of this book makes quite a claim – i.e. that technology in our schools is actually making children less, not more intelligent. Having studied, written and campaigned on this issue for many years now (e.g. House, 2012, 2015), and having experienced at first hand the noxious impact of the 'audit culture' on university students and their capacity for independent learning, I have to say that I am completely convinced of the counter-intuitive case that the authors make in this important book.

However, it's only fair that I declare an interest or bias at this point. In the spirit of transparency, it's important to say that I do personally avoid social media and smart phones on principle in my own life. So while this review will unavoidably be coloured by my own chosen location in relation to these technologies, I will strive to be as even-handed as possible in my commentary on this book.

Assuming for a moment that authors Joe Clement and Matt

Miles are right about the harm done to pedagogical learning environments by these increasingly ubiquitous technologies, the really interesting question then becomes that of how on earth we've got into this unholy educational mess. I will say something about this crucial question later.

But first, the book itself. It's important to emphasize that this is a book about schooling in the USA – but crucially, the arguments developed therein are just as applicable in any (Western) country in which ICT and screens have intruded into the pedagogical space. The authors are 'veteran teachers' who are not only writing from their own direct experience of the pedagogical impact of these technologies, but have also backed up their own experience by an impressive review of the relevant research literature. I'm a great admirer of Baroness Professor Susan Greenfield, and the principled stand she has taken about the deleterious impacts of these technologies on the developing brain – and Greenfield endorses the book on the front cover, calling it 'an urgent wake-up call for anyone interested in how screen use in schools is damaging kids and education'.

The book consists of ten highly readable chapters – the authors are teachers rather than academics, and this makes for a very pleasant and undemanding read. The chapters that

might especially interest humanistic practitioners are 'Reclaiming your child's ability to think', 'Escaping the digital world of anxiety', 'Revitalizing social interaction', 'The Education-Industrial Complex' and 'Ideal education in a modern world'. The authors interviewed 'dozens of colleagues, scientists, and politicians' for the book, and read everything they could about 'the intersection of digital technologies and the way kids learn' (p. vii). They make the key point early on that these technologies are now so ingrained and taken-for-granted in society that such technological 'overindulgence' has become the 'new normal' (p. x). They go as far as claiming that 'Technology has become [children's] lives. It consumes them in every conceivable way' (p. xi).

In their introduction, the authors refer to the advent of the smartphone as 'a new chapter in human history' (p. 3); and in the early part of the book they proceed to blow open many of the shibboleths accompanying these technologies. Thus we read that children today construe texting and playing games online as 'social interaction' (p. 12); that one of the carefully propagated myths of these technologies is that they will lead to enhanced critical thinking, social awareness and enhanced memory functions (p. 15) – and that if you dare to question these frothy claims, you're immediately written off as a Luddite (p. 16); that technology has fundamentally changed children's culture (p. 19); there's the self-justifying claim that traditional teaching approaches are 'too slow' (p. 21)... and so on.

We also read of how screen time is displacing all kinds of other activities, such that 'there is virtually no time left for traditional childhood activities...' (p. 25); and that technologies are being deliberately *designed* to be addictive (ibid.), with crude behavioural psychology techniques and tech companies using 'the very same tactics casinos use to ensnare gamblers' (p. 27). We also read of some scarcely believable horror stories: for example, of the iPotty – 'a potty training toilet that has an arm that will hold an iPad or other tablets, so that the young child does not even have to be disconnected from the screen when using the toilet' (p. 204); or Fisher-Price's 'Newborn-to-Toddler Apptivity Seat' (I'm really not making this up), which is 'an infant seat that keeps the iPad squarely in the child's field of vision' (p. 204). One is reminded of the old Jesuit saying: 'Give me a child until he [sic] is seven and I will give you the man' (for which, read captured 'lifelong consumer of techno-stuff').

Social relationships themselves are also clearly suffering, as 'If we do not actively seek out connections with other people in real life, we actually lose the ability to make them (p, 150). More on this crucial issue later.

There is also a big issue regarding the displacement of important skills by these technologies (pp. 38–44), in which we're told that we are seeing 'the wholesale abandonment of most of our prized brain functions' (p. 38), with brain atrophy the result (p. 56). If there's even the remotest truth in this claim, it surely has to be extremely disturbing. One teenager is quoted as saying, 'If I lose my cellphone, I lose half my brain' (p. 39); and

later, 'My phone is my life' (p. 147). When I had a discussion about these technologies with 3rd year university undergraduates some years ago, one student said, 'Without my mobile phone, I feel like my arm's been cut off'. These are truly shocking comments. Moreover, children are becoming 'dependent on their technology to do all their thinking for them..., having outsourced all their basic cognitive functions to their electronic devices' (pp. 39, 40). Google has also given children the capacity to answer knowledge-based questions without them internalizing any of the knowledge (p. 40); and digital natives possess no contextualizing framework for making sense of new information (p. 41). And the body is also under siege in this march of the inhuman, as body language is replaced by emoticons (p. 42).

In terms of schooling and education, we find that schools are now trying to trick digital natives into learning using 'edutainment' and educational gaming in classrooms 'in an attempt to sneak learning into the digital playground' (pp. 35–6) – a classic case of the technological tail wagging the pedagogical dog. Problem-solving abilities are also a casualty of these technologies (pp. 50–5). Susan Greenfield is approvingly quoted as maintaining that 'Video games are replacing children's imaginations' (p. 52), with games created by the minds of others (p. 53). The capacity for inference is also a casualty, and impoverished children's imaginations beget adults with poor problem-solving skills (p. 53); and children's brains are becoming more geared for leisure than for deep thought (p. 60). I return to the impact of children's thinking capacity below.

The claimed benefits of so-called 'multi-tasking' are also witheringly deconstructed and problematized (pp. 79–97), including a discussion of the notion of 'inattentional blindness' (pp. 82–3). Thus, census data has discovered that half of teenagers are on social media while doing homework, over half are watching TV, and 60 per cent are texting (p. 79). In fact, we learn that the very notion of 'multi-tasking' is a misnomer – with the correct term being 'multi*switching*' or 'task switching' (p. 88). And worryingly, 'frequent multitaskers... lack any real ability to truly focus on any one task' (p. 89). The 'irrelevancy problem' (p. 91–2) is also important here, with digiLearners commonly being unable to discern what's important, and what isn't. And we also read that multitaskers 'literally have smaller brains' (p. 93), and commonly delude themselves that they have the ability to focus, when the research evidence clearly shows that they don't. Moreover, a vicious circle is set up, whereby 'multitasking' replaces focusing, and then when focusing is required, it's experienced as exhausting for the untrained mind – hence the propensity to avoid focusing at any price when easier *distraction*s are readily available (cf. p. 97). And relatedly, we're also rightly reminded that genuine learning is difficult: 'some concepts aren't fun for anyone... learning them is hard work' (p. 98).

In sum, as Professor Clifford Nass is quoted as saying, 'People who chronically multitask show an enormous range of deficits.... They're chronically distracted' (p. 93). And distraction is indeed seen to be a core task of technology usage – or as

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we existentialists would say, these technologies enable, and encourage, a chronic capacity to distract *from Being itself*.

With regard to thinking, we read that devices have the effect of relieving children from the demands of higher-level thinking by substituting more comfortable menial repetitive tasks (p. 96). And later, we read that modern digiLearners tend to 'fill any amount of mental downtime, no matter how brief, with the noise of other people's voices to *drown out their own thoughts'* (pp. 224–5, my italics). And as argued elsewhere in the book, 'Thinking can be exhausting, and it can make you uncomfortable, so many students choose to avoid it at all costs. Modern devices make this avoidance really easy.' (p. 225) Silence is also seen as important, as it is the antidote to students using noise to drown out their own thoughts (p. 226). So the authors advocate creating classroom climates that foster problem-solving skills and deep thinking' – again, something that can't be done without hard work (p. 228).

The drastic decline in children's mental health is also highlighted, with 'dozens of studies showing a strong correlation between excessive technology use and a decline in mental health' (p. 113). Moreover, social media use only exacerbates the deficiencies of some children in the realm of human interaction (p. 117) – thus setting in train another vicious cycle. The authors explicitly highlight 'the harm digital technologies are having on the ability of young people to develop socially' (p. 149), with research suggesting that children who spend more than 1–2 hours a day showing a 60 per cent increase in psychological disorders (ibid.). And 'Students... are losing the ability to converse in any sort of genuine, face-to-face way' (p. 153), with the ability to enter into such dialogical relating having deteriorated in recent years (ibid.).

We also read of enhanced and divisive competitiveness, and the despair felt when one constantly falls short of one's 'ideal' digital persona (p. 121). When I was at Roehampton University, I supervised a PsychD student's original qualitative research into the psychodynamics of these technologies, based on a series of in-depth interviews with users. The student's findings threw revealing and disturbing light on the highly neurotic and narcissistic character traits that these technologies both encourage and reinforce. One example would be the way in which mobiles phones can easily function as a Winnicottian 'transitional object' (cf. p. 146).

I also discerned in the book tell-tale signs of the toxic impact of the 'audit culture' in schooling. The observation that 'over the last decade [teachers'] directions on every assignment have had to be made increasingly more detailed' (p. 55) resonated with my own experience of university students who increasingly need to be spoon-fed information about set essays, rather than being given a title and then left to use their own initiative in answering it. Related to this is the way in which 'Students are increasingly unable to navigate the world and their relationships without their devices' (p. 146). And as the authors write later, 'in the age of constant "high stakes" testing, students are increasingly incapable of thinking on their own' (p. 153).

We also find that these technologies are actually widening the school achievement gap, especially in relation to social class, race and gender (see Chapter 8). Little wonder, then, that the likes of the late Steve Jobs and top Silicon Valley tech-company executives severely limit their own children's use of these technologies, with many of them sending their offspring to low/soft-tech Steiner Waldorf schools! – with an extraordinary three-quarters of all Waldorf students in Silicon Valley having links to the tech industry (p. 175). It really is difficult to make up the sheer cynicism of capitalism's 'unacceptable face' at its worst.

We often hear a counsel of despair about these technologies – that even if they are demonstrably harmful, they're now ubiquitous in modern culture, so we just have no choice but to work with this reality. Clement and Miles disagree, arguing that 'We don't always have to meet kids where they are' (pp. 4–5). I strongly agree – and I like to argue that we adults need to be the *proactive creators* of modern culture, not the hapless victims of it, with society offering little more than a 'collective resigned shrug' (p. 37). The Steiner school movement has pioneered a healthy relationship with these technologies for many years (cf. pp. 174–6) – so it's certainly not impossible to create family lives that put these technologies in their proper place; all parents need is the will and the accompanying strategies to effect this.

The book ends with a chapter on 'Ideal education in a modern world', in which the authors lay out what a non- or low-tech, genuinely human educational milieu could and should look like – their three guiding pedagogical principles being (1) keep it simple; (2) focus instruction on skills; and (3) foster face-to-face social interaction; for 'if students are on screens, they are not interacting with live human beings' (p. 222). The key messages are that we must first create tech distraction-free classrooms; foster genuine collaboration; and use technology to support, and not replace, pedagogical instruction.

It's important to emphasize that the authors are by no means 'techno-Luddites' (so in that sense I think they're probably much more tolerant of technology per se than I am). Thus, they write that they're 'not pushing to remove all screens and digital technologies from schools' and that it's not their contention that 'all technology is inherently bad' (p. x). This in turn renders the relentless criticisms they do make all the more impactful and convincing.

Each chapter has a 'Takeaways' section at the end, in which the authors set out some very useful indications for what parents and teachers can do to stem and reverse the techno-tide; and the book also has a useful index.

So how have we got into this sorry mess? I would sum up the problem as that of paradigms, commercial interests, and the myth of technological 'progress'. In terms of the commercial interests of the so-called Education-Industrial Complex (Chapter 9), here are some sobering, even shocking stats: today, 56 per cent of US six year olds have their own cell phones (p. 24); nearly

30 per cent of infants spend 90 minutes or more a day on screens, and by age 4 the average is 4 hours a day (ibid.); and 78 per cent of the time that teenagers spend on devices is devoted to 'passive' and 'interactive' consumption (p. 26). On page 130 we read of ed-tech firms 'prey[ing] on our insecurity as parents' (p. 130).

The authors certainly don't pull any punches: 'there is a *very open* vast conspiracy by industry to make obscene profits by selling families and schools technology that is actually bad for kids' (p. 188, their italics), and with education being treated as 'an industry' (p. 191). These indictments are particularly telling in light of the statement on page 192 that the authors think that 'markets are beautiful', and that they 'love capitalism'! In this chapter we also read about the ways in which the US 'capitalist state' policy-making process merely adds impetus to the technologization of the schooling system – e.g. the Common Core State Standards programme (pp. 196–9), with – surprise, surprise – Common Core standards all coming preloaded on the Microsoft tablets that had been marketed to the schooling system (p. 198).

In terms of paradigms and the postmodern myth of (technological) 'progress', this is not the place to go into these issues in detail; but suffice to mention that any comprehensive critique of these technologies would need to locate them in the wider evolution of human consciousness, as Jeremy Naydler does brilliantly in his new book (Naydler, 2018).

But the fault should not just be laid at the door of voracious profits-hungry corporations and the ideology of late-modernity – for parents themselves have much to answer for, too. Thus, we know that children commonly imitate their parents – especially younger children; so what impact does it have on children when they see their parents and other adults constantly on their phone, computers and tablets? And the surreptitious message that the child can easily get is that mum or dad's screen or phone is more important than they are. Tragic... – and I'm sure we've all seen examples of this, if not ourselves been the perpetrators. Dr Victoria Prooday is quoted as saying that 'Technology... disconnects us emotionally from our children and our families. Parental emotional availability is the main nutrient for [the] child's brain.... We're depriving our children of that nutrient.' (p. 133) So as the authors say, 'technology can't replace parenting; and parents need to monitor carefully their own screen usage' (p. 136).

'Helicopter parenting' comes in for a good bashing, too (pp. 133–8), with over-intrusive and over-anxious parents constantly contacting their children during the school day being of particular concern, with its common effect of 'emotional and social stunting' (p. 135).

Finally, there are some online resources that readers, parents, teachers and concerned citizens can mine – viz. www.screenschooled.com, www.paleoeducation.com and their Google group community 'Beyond the Screens'. The authors are all too aware of the irony – and possible contradiction – of using the very technologies they're challenging to connect with readers (p. v). But I think that's a small irony worth paying to wake people up to what Jean-Francois Lyotard evocatively called 'the March of the Inhuman' in children's lives. As the authors implore us on page 45, 'Be an advocate for in-person human connections and time away from screens'. And if humanistic folk like us aren't going to challenge and seek to reverse this mindless march of techno-modernity and the dehumanization that it is demonstrably generating, then who will?

I cannot (re)commend this book highly enough; Joe Clement and Matt Miles have done modern culture a tremendous service in writing it.

Richard House Ph.D. is the editor of this newsletter, and former co-editor of *Self & Society* journal. He currently lives, writes and campaigns on a range of issues in Stroud, Gloucestershire. Contact: richardahouse@hotmail.com

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