

LYN McLEAN

WIRELESS-WISE FAMILIES

Notes

Copyright © Lyn McLean 2017

All rights reserved. Without limiting the rights under copyright reserved above, no part of this publication may be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the publishers of this book.

Typeset in Adobe Garamond 11/17pt by Scribe

Wireless-wise Families: what every parent needs to know about wireless technologies

9781925322248 (paperback)

9781925548600 (e-book)

scribepublications.com.au

scribepublications.co.uk

Notes

Chapter 2: Why Take Precautions?

p. 10 'CERENAT': Coureau G et al., 'Mobile phone use and brain tumours in the CERENAT case-control study', *Occup Environ Med.* 2014 Jul;71(7):514–22. doi: 10.1136/oemed-2013-101754. Epub 2014 May 9.

- **'a number of studies that found increased risk of gliomas':** e.g. Hardell L and Carlberg M, 'Mobile phone and cordless phone use and the risk for glioma: analysis of pooled case-control studies in Sweden, 1997–2003 and 2007–2009', *Pathophysiology.* 2015 Mar;22(1):1–13. doi: 10.1016/j.pathophys.2014.10.001. Epub 2014 Oct 29.
- **'acoustic neuromas':** Hardell L et al., 'Pooled analysis of case-control studies on acoustic neuroma diagnosed 1997–2003 and 2007–2009 and use of mobile and cordless phones', *Int J Oncol.* 2013 Oct;43(4):1,036–44. doi: 10.3892/ijo.2013.2025. Epub 2013 Jul 22.
- **'meningiomas':** Carlberg M and Hardell L, 'Pooled analysis of

- Swedish case-control studies during 1997–2003 and 2007–2009 on meningioma risk associated with the use of mobile and cordless phones’, *Oncol Rep.* 2015 Jun;33(6):3,093–8. doi: 10.3892/or.2015.3930. Epub 2015 Apr 27.
- **‘In 2014’:** Carlberg M and Hardell L, ‘Decreased survival of glioma patients with astrocytoma grade IV (glioblastoma multiforme) associated with long-term use of mobile and cordless phones’, *Int J Environ Res Public Health.* 2014 Oct 16;11(10):10,790–805. doi: 10.3390/ijerph111010790.
 - **‘schwannomas’:** Wyde M et al., ‘Report of partial findings from the National Toxicology Program carcinogenesis studies of cell phone radiofrequency radiation in Hsd’, 2016 Jun 23. doi: 10.1101/055699. <http://biorxiv.org/content/early/2016/06/23/055699>
 - **‘Class 2A’:** e.g. Davis DL et al., ‘Swedish review strengthens grounds for concluding that radiation from cellular and cordless phones is a probable human carcinogen’, *Pathophysiology.* 2013 Apr;20(2):123–9. doi: 10.1016/j.pathophys.2013.03.001. Epub 2013 May 7.
- p. 11 ‘group statements and resolutions’:** see McLean L, *The Force.* Melbourne, Scribe, 2015.
- p. 12 ‘Italy’s Supreme Court’:** Hills S, ‘Mobile phones *can* cause brain tumours, court rules in landmark case’, *Daily Mail.* 2012 Oct 19.
- **‘court in the city of Ivrea’:** ‘Italian court finds link between cell phone use and tumor’, *Associated Press.* 2017 April 20.
- p. 13 ‘court in Florence’:** http://www.corriere.it/cronache/17_aprile_24/danni-uso-cellulare-un-altra-sentenza-firenze-56a2eac4-

2922-11e7-a532-a1780cddea55.shtml (in Italian)

- **'Australia':** Administrative Appeals Tribunal of Australia, *McDonald and Comcare [2013] AATA 105 (28 February 2013)*. <http://www.austlii.edu.au/au/cases/cth/aat/2013/105.html>
- **'France':** BBC News. 2015 Aug 28.
- p. 14 **'Israel':** Ghelberg S et al., 'National activity report: Israel 2015'. http://www.who.int/peh-emf/project/mapnatreps/ISRAEL_2015.pdf
- **'Spanish High Court':** Legal Medical Group, 'Labour court in Spain declares college professor permanently incapacitated from environmental and electromagnetic hypersensitivity'. <http://electromagnetichealth.org/electromagnetic-health-blog/labor-court-spain/>
- **'a court in Castellón':** http://www.elperiodicomediterraneo.com/noticias/castellon/es-fin-cuatro-anos-calvario-enfermo-aislado-betxi_1053306.html (in Spanish)
- **'USA':** Huffman Z, 'School wi-fi blamed for child's symptoms', *Courthouse News Service*. 17 Aug 2015. <http://www.courthousenews.com/2015/08/17/school-wifi-blamed-for-childs-symptoms.htm>
- pp. 14–5: 'Man claims cell tower gave him cancer, Supreme Court shuts it down', *The Times of India*. 2017 April 12.
- p. 16 **'Some insurance companies':** 'Insurance and Liability of Wireless Communication', 2013 Mar 13. <http://www.mainecoalitiontostopsmartmeters.org/wp-content/uploads/2013/04/EV9-Insurability-Liability-Corrected-4-8-13-PUC-464.pdf>

- **'A&E Insurance':** CFC Underwriting, A&E Insurance for Architects and Engineers, ProSurance TM A&E Policy Document.
 - **'Swiss Re':** Swiss Re, 'Electrosmog: a phantom risk'. 1997.
 - **'In 2013':** Swiss Re, 'SONAR emerging risk insights'. 2013 Jun.
 - **'Telstra':** Telstra Annual Report 2015, p. 34.
- p. 17 **'Orange':** Orange, 'Best practice'. <http://www.ondes-radio.orange.com/en/your-mobile/best-practice>

Chapter 3: Mobile Phones

- p. 22 **'with 5mm separation':** Apple, 'iPhone 7 RF Exposure information'. <https://www.apple.com/legal/rfexposure/iphone9,3/en/>
- pp. 22–3 **'All women underwent mastectomies':** West JG et al., 'Multifocal breast cancer in young women with prolonged contact between their breasts and their cellular phones', *Case Rep Med.* 2013;2013:354,682. doi: 10.1155/2013/354682. Epub 2013 Sep 18.

Chapter 4: Cordless Phones

- pp. 31–2 **'double the risk':** Hardell L and Carlberg M, 'Mobile phone and cordless phone use and the risk for glioma: analysis of pooled case-control studies in Sweden, 1997–2003 and 2007–2009', *Pathophysiology.* 2015 Mar;22(1):1–13. doi: 10.1016/j.pathophys.2014.10.001. Epub 2014 Oct 29.
- p. 32 **'six-and-a-half times the rate':** Hardell L et al., 'Pooled analysis of case-control studies on acoustic neuroma diagnosed 1997–2003 and 2007–2009 and use of mobile and cordless phones',

Int J Oncol. 2013 Oct;43(4):1,036–44. doi: 10.3892/ijo.2013.2025.
Epub 2013 Jul 22.

Chapter 5: Wi-fi

- p. 37 'sending texts or emails while asleep':** Selvaratnam S, 'Daily stress is leading to a rise in the potential nightmare of "sleep texting", expert claims', *Daily Mail*. 2013 Aug 23; Strossjan R, 'You've been talking (or pressing "Send") in your sleep', *New York Times*. 2009 Jan 10.
- p. 39 'changes to microRNA':** Dasdag S et al., 'Effects of 2.4 GHz radiofrequency radiation emitted from wi-fi equipment on microRNA expression in brain tissue', *Int J Radiat Biol.* 2015 Jul;91(7):555–61. doi: 10.3109/09553002.2015.1028599. Epub 2015 May 20.
- **'damage to the reproductive system':** Dasdag S et al., 'Effect of long-term exposure of 2.4 GHz radiofrequency radiation emitted from wi-fi equipment on testes functions', *Electromagn Biol Med.* 2015 Mar;34(1):37–42. doi: 10.3109/15368378.2013.869752. Epub 2014 Jan 24; Atasoy HI et al., 'Immunohistopathologic demonstration of deleterious effects on growing rat testes of radiofrequency waves emitted from conventional wi-fi devices', *J Pediatr Urol.* 2013 Apr;9(2):223–9. doi: 10.1016/j.jpuro.2012.02.015. Epub 2012 Mar 30; Naziroglu M et al., 'Recent reports of wi-fi and mobile phone-induced radiation on oxidative stress and reproductive signaling pathways in females and males', *J Membr Biol.* 2013 Dec;246(12):869–75. doi: 10.1007/

s00232-013-9597-9. Epub 2013 Oct 9; Saygin M et al., 'Impact of 2.45 GHz microwave radiation on the testicular inflammatory pathway biomarkers in young rats: the role of gallic acid', *Environ Toxicol*. 2015 Aug 13. doi: 10.1002/tox.22179; Almasiova V et al., 'Structural and ultrastructural study of rat testes influenced by electromagnetic radiation', *J Toxicol Environ Health A*. 2014;77(13):747–50. doi: 10.1080/15287394.2014.890988; Shahin S et al., '2.45 GHz microwave irradiation adversely affects reproductive function in male mouse, *Mus musculus* by inducing oxidative and nitrosative stress', *Free Radic Res*. 2014 May;48(5):511–25. doi: 10.3109/10715762.2014.888717. Epub 2014 Feb 25.

- **'interference with pregnancy'**: Shahin S et al., '2.45 GHz microwave irradiation-induced oxidative stress affects implantation or pregnancy in mice, *Mus musculus*', *Appl Biochem Biotechnol*. 2013 Mar;169(5):1,727–51. doi: 10.1007/s12010-012-0079-9. Epub 2013 Jan 22.
- **'brain damage'**: Kesari KK et al., 'Mutagenic response of 2.45 GHz radiation exposure on rat brain', *Int J Radiat Biol*. 2010 Apr;86(4):334–43. doi: 10.3109/09553000903564059.
- **'reduced growth'**: Sangun O et al., 'The effects of long-term exposure to a 2,450 MHz electromagnetic field on growth and pubertal development in female Wistar rats', *Electromagn Biol Med*. 2015 Mar;34(1):63–71. doi: 10.3109/15368378.2013.871619. Epub 2014 Jan 24.
- **'damage to the eye lens'**: Tok L et al., 'Effects of melatonin on wi-fi-induced oxidative stress in lens of rats', *Indian J Ophthalmol*.

2014 Jan;62(1):12–5. doi: 10.4103/0301-4738.126166.

- **‘reduced liver function’**: Holovska K et al., ‘Structural and ultrastructural study of rat liver influenced by electromagnetic radiation’, *J Toxicol Environ Health A*. 2015;78(6):353–6. doi: 10.1080/15287394.2014.979272.
 - **‘poorer learning and memory’**: Shahin S et al., ‘2.45 GHz microwave radiation impairs learning and spatial memory via oxidative/nitrosative stress induced p53-dependent/independent hippocampal apoptosis: molecular basis and underlying mechanism’, *Toxicol Sci*. 2015 Dec;148(2):380–99. doi: 10.1093/toxsci/kfv205. Epub 2015 Sep 22.
 - **‘cardiovascular damage’**: Saili L et al., ‘Effects of acute exposure to wi-fi signals (2.45 GHz) on heart variability and blood pressure in Albinos rabbit’, *Environ Toxicol Pharmacol*. 2015 Sep;40(2):600–5. doi: 10.1016/j.etap.2015.08.015. Epub 2015 Aug 17.
 - **‘exposed sperm had less motility’**: Avendano C, et al., ‘Use of laptop computers connected to internet through wi-fi decreases human sperm motility and increases sperm DNA fragmentation’, *Fertil Steril*. 2012 Jan;97(1):39–45.e2. doi: 10.1016/j.fertnstert.2011.10.012. Epub 2011 Nov 23.
- p. 40 **‘an uncontrolled experiment’**: Markov M and Grigoriev YG, ‘Wi-fi technology: an uncontrolled global experiment on the health of mankind’, *Electromagn Biol Med*. 2013 Jun;32(2):200–8. doi: 10.3109/15368378.2013.776430.
- **‘What about eyesight?’**: ABC News, ‘Eye health “time bomb” as kids stay indoors, increase screen exposure’. 2015 Dec 19; Zhou J et al., ‘Prevalence of myopia and influencing factors among primary

and middle school students in six provinces of China', *Zhonghua Liu Xing Bing Xue Za Zhi*. 2016 Jan;37(1):29–34.

- p. 41 **'De-stress'**: Aspinnall P et al., 'The urban brain: analysing outdoor physical activity with mobile EEG', *Br J Sports Med*. 2015 Feb;49(4):272–6. doi: 10.1136/bjsports-2012-091877. Epub 2013 Mar 6.
- p. 42 **'Just how smart is your smart TV?'**: Trader S, 'Samsung hit with privacy class action over smart TVs', *Law 360*. 2017 Mar 13. <https://www.law360.com/articles/900998/samsung-hit-with-privacy-class-action-over-smart-tvs>

Chapter 6: Digital Dads and Mobile Mums

- p. 48 **'sperm motility and viability'**: Adams JA et al., 'Effect of mobile telephones on sperm quality: a systematic review and meta-analysis', *Environ Int*. 2014 Sep;70:106–12. doi: 10.1016/j.envint.2014.04.015. Epub 2014 Jun 10.
- **'negative effects on sperm'**: Shokri S et al., 'Effects of wi-fi (2.45 GHz) exposure on apoptosis, sperm parameters, and testicular histomorphometry in rats: a time course study', *Cell J*. 2015 Summer;17(2):322–31. Epub 2015 Jul 11.
- **'Rats ... had lower sperm counts'**: Saygin M et al., 'Impact of 2.45 GHz microwave radiation on the testicular inflammatory pathway biomarkers in young rats: the role of gallic acid', *Environ Toxicol*. 2015 Aug 13. doi: 10.1002/tox.22179.
- **'Cell death'**: Saygin M et al., 'Impact of L-carnitine and selenium treatment on testicular apoptosis in rats exposed to 2.45 GHz

microwave energy', *West Indian Med J.* 2015 Mar;64(2):55–61. doi: 10.7727/wimj.2014.205. Epub 2015 Apr 13.

- **'DNA damage'**: Atasoy HI et al., 'Immunohistopathologic demonstration of deleterious effects on growing rat testes of radiofrequency waves emitted from conventional wi-fi devices', *J Pediatr Urol.* 2013 Apr;9(2):223–9. doi: 10.1016/j.jpuro.2012.02.015. Epub 2012 Mar 30
- **'defects in the sperm head'**: Dasdag S et al., 'Effect of long-term exposure of 2.4 GHz radiofrequency radiation emitted from wi-fi equipment on testes functions', *Electromagn Biol Med.* 2015 Mar;34(1):37–42. doi: 10.3109/15368378.2013.869752. Epub 2014 Jan 24.
- **'mice had lower sperm counts'**: Shahin S et al., '2.45 GHz microwave irradiation adversely affects reproductive function in male mouse, *Mus musculus* by inducing oxidative and nitrosative stress', *Free Radic Res.* 2014 May;48(5):511–25. doi: 10.3109/10715762.2014.888717. Epub 2014 Feb 25.
- **'erectile dysfunction'**: Al-Ali BM et al., 'Cell phone usage and erectile function', *Cent European J Urol.* 2013;66(1):75–7. doi: 10.5173/cej.2013.01.art23. Epub 2013 Apr 26.
- p. 49 **'abnormal kidney development'**: Bedir R et al., 'The effect of exposure of rats during prenatal period to radiation spreading from mobile phones on renal development', *Ren Fail.* 2015 Mar;37(2):305–9. doi: 10.3109/0886022X.2014.985995. Epub 2014 Nov 19
- **'changes in the development of the cerebellum'**: Odaci E et al., 'Maternal exposure to a continuous 900 MHz electromagnetic field

provokes neuronal loss and pathological changes in cerebellum of 32-day-old female rat offspring', *J Chem Neuroanat.* 2015 Sep 21;75(Pt B):105–10. doi: 10.1016/j.jchemneu.2015.09.002. Epub 2015 Sep 21.

- **'loss of cells from the hippocampus':** Bas O et al., 'Chronic prenatal exposure to the 900 megahertz electromagnetic field induces pyramidal cell loss in the hippocampus of newborn rats', *Toxicol Ind Health.* 2009 Jul;25(6):377–84. doi: 10.1177/0748233709106442; Odaci E et al., 'Effects of prenatal exposure to a 900 MHz electromagnetic field on the dentate gyrus of rats: a stereological and histopathological study', *Brain Res.* 2008 Oct 31;1238:224–9. doi: 10.1016/j.brainres.2008.08.013. Epub 2008 Aug 16.
- **'structural damage of the cochlear':** Seckin E et al., 'The effect of radiofrequency radiation generated by a Global System for Mobile Communications source on cochlear development in a rat model', *J Laryngol Otol.* 2014 May;128(5):400–5. doi: 10.1017/S0022215114000723. Epub 2014 May 1.
- **'testicular damage':** Odaci E et al., 'Effects of prenatal exposure to a 900 MHz electromagnetic field on 60-day-old rat testis and epididymal sperm quality', *Biotech Histochem.* 2016 Jan;91(1):9–19. doi: 10.3109/10520295.2015.1060356. Epub 2015 Oct 15; Hanci H et al., 'The effect of prenatal exposure to 900 MHz electromagnetic field on the 21-old-day rat testicle', *Reprod Toxicol.* 2013 Dec;42:203–9. doi: 10.1016/j.reprotox.2013.09.006. Epub 2013 Oct 1.
- **'liver damage':** Topal Z et al., 'The effects of prenatal long-duration

exposure to 900 MHz electromagnetic field on the 21-day-old newborn male rat liver', *Turk J Med Sci*. 2015;45(2):291–7.

- **'heart damage'**: Turedi S et al., 'The effects of prenatal exposure to a 900 MHz electromagnetic field on the 21-day-old male rat heart', *Electromagn Biol Med*. 2015 Dec;34(4):390–7. doi: 10.3109/15368378.2014.952742. Epub 2014 Aug 28.
- **'damage to the thymus and spleen'**: Hanci H et al., 'Can prenatal exposure to a 900 MHz electromagnetic field affect the morphology of the spleen and thymus, and alter biomarkers of oxidative damage in 21-day-old male rats?' *Biotech Histochem*. 2015 Oct;90(7):535–43. doi: 10.3109/10520295.2015.1042051. Epub 2015 May 19.
- **'deformity of the embryo'**: Shahin S et al., '2.45 GHz microwave irradiation-induced oxidative stress affects implantation or pregnancy in mice, *Mus musculus*', *Appl Biochem Biotechnol*. 2013 Mar;169(5):1,727–51. doi: 10.1007/s12010-012-0079-9. Epub 2013 Jan 22.
- **'harmful oxidation in the uterus'**: *ibid*.
- **'delayed puberty'**: Sangun O et al., 'The effects of long-term exposure to a 2,450 MHz electromagnetic field on growth and pubertal development in female Wistar rats', *Electromagn Biol Med*. 2015 Mar;34(1):63–71. doi: 10.3109/15368378.2013.871619. Epub 2014 Jan 24.
- **'kidney and testicular damage'**: Ozorak A et al., 'Wi-fi (2.45 GHz)- and mobile phone (900 and 1,800 MHz)-induced risks on oxidative stress and elements in kidney and testis of rats during pregnancy and the development of offspring', *Biol Trace Elem Res*.

2013 Dec;156(1–3):221–9. doi: 10.1007/s12011-013-9836-z. Epub 2013 Oct 8.

- **‘changes to Purkinje neurons’**: Haghani M et al., ‘Maternal mobile phone exposure adversely affects the electrophysiological properties of Purkinje neurons in rat offspring’, *Neuroscience*. 2013 Oct 10;250:588–98. doi: 10.1016/j.neuroscience.2013.07.049. Epub 2013 Jul 29
- **‘poorer cognitive performance’**: Razavinasab M, ‘Maternal mobile phone exposure alters intrinsic electrophysiological properties of CA1 pyramidal neurons in rat offspring’, *Toxicol Ind Health*. 2014 Mar 6;32(6):968–79. doi: 10.1177/0748233714525497. Epub 2014 Mar 6.
- p. 50 **‘oxidative damage’**: Burlaka A et al., ‘Overproduction of free radical species in embryonal cells exposed to low intensity radiofrequency radiation’, *Exp Oncol*. 2013 Sep;35(3):219–25.
- **‘higher rates of headaches’**: Sudan M et al., ‘Prenatal and postnatal cell phone exposures and headaches in children’, *Open Pediatr Med Journal*. 2012 Dec 5;6(2012):46–52.
- **‘behavioural problems’**: Divan HA et al., ‘Prenatal and postnatal exposure to cell phone use and behavioral problems in children’, *Epidemiology*. 2008 Jul;19(4):523–9. doi: 10.1097/EDE.0b013e318175dd47; Divan HA et al., ‘Cell phone use and behavioural problems in young children’, *J Epidemiol Community Health*. 2012 Jun;66(6):524–9. doi: 10.1136/jech.2010.115402. Epub 2010 Dec 7.
- p. 51 **‘Hugh Taylor’**: Karen Peart, ‘Cell phone use in pregnancy may cause behavioral disorders in offspring’, *Yale News*, 2012 Mar 15.

<http://news.yale.edu/2012/03/15/cell-phone-use-pregnancy-may-cause-behavioral-disorders-offspring>

- **'speech problems':** Zarei S et al., 'A challenging issue in the etiology of speech problems: the effect of maternal exposure to electromagnetic fields on speech problems in the offspring', *J Biomed Phys Eng.* 2015 Sep 1;5(3):151–4. Epub 2015 Sep 1.

Chapter 7: Wireless Kids

- pp. 53–4 **'babies':** Kabali HK, 'Exposure and use of mobile media devices by young children', *Pediatrics.* 2015 Dec;136(6):1,044–50. doi: 10.1542/peds.2015-2151. Epub 2015 Nov 2.
- pp. 54 **'aged 15 to 19':** Bennet S, 'Social media addiction: statistics and trends (infographic)', *Adweek.* 2014 Dec 30. <http://www.adweek.com/digital/social-media-addiction-stats>
- **'age of 16':** Kormendi A, 'Smartphone usage among adolescents', *Psychiatr Hung.* 2015;30(3):297–302.
- **'a quarter of teenagers':** Lenhart A, 'Teens, social media, and technology overview 2015', Pew Research Center, 2015 Apr 9. <http://www.pewinternet.org/2015/04/09/teens-social-media-technology-2015>
- p. 55 **'higher rates of ADHD':** Byun YH et al., 'Mobile phone use, blood lead levels, and attention deficit hyperactivity symptoms in children: a longitudinal study', *PLoS One.* 2013;8(3):e59742. doi: 10.1371/journal.pone.0059742. Epub 2013 Mar 21.
- **'Headaches':** Redmayne M et al., 'The relationship between adolescents' wellbeing and their wireless phone use: a cross-

- sectional study’, *Environ Health*. 2013 Oct 22;12:90. doi: 10.1186/1476-069X-12-90.
- p. 56 ‘Charlie Teo’:** ‘Wake Up Call’, *60 Minutes*, Nine Network, aired 2009 Apr 3.
- **‘Lennart Hardell’:** Hardell L and Carlberg M, ‘Mobile phone and cordless phone use and the risk for glioma: analysis of pooled case-control studies in Sweden, 1997–2003 and 2007–2009’, *Pathophysiology*. 2015 Mar;22(1):1–13. doi: 10.1016/j.pathophys.2014.10.001. Epub 2014 Oct 29.
 - **‘Autism’:** Herbert MR and Sage C, ‘Autism and EMF? Plausibility of a pathophysiological link (part I)’, *Pathophysiology*. 2013 Jun;20(3):191–209. doi: 10.1016/j.pathophys.2013.08.001. Epub 2013 Oct 4.; Herbert MR and Sage C, ‘Autism and EMF? Plausibility of a pathophysiological link (part II)’, *Pathophysiology*. 2013 Jun;20(3):211–34. doi: 10.1016/j.pathophys.2013.08.002. Epub 2013 Oct 8.
- p. 57 ‘attention-deficit behaviours’:** Sigman A, ‘The impact of screen media on children: a Eurovision for Parliament’, in: *Improving the Quality of Childhood in the European Union (volume 3)*. European Council for Steiner Waldorf Education / Alliance for Childhood European Network Group, 2012. <http://www.ecswe.com/publication-qoc-europe-2012.php>
- pp. 57–8 ‘addiction’:** Ward V, ‘Toddlers becoming so addicted to iPads they require therapy’, *Telegraph*. 2013 Apr 21.
- p. 58 ‘Cayla doll’:** Fogel K, ‘Germany bans creepy doll over privacy concerns’, *Engadget*. 2017 Feb 17. <https://www.engadget.com/2017/02/17/germany-bans-my-friend-cayla-doll/>

Chapter 7: Wireless Learning

- p. 66 **'Massachusetts'**: Huffman Z, 'School wi-fi blamed for child's symptoms', *Courthouse News Service*. 17 Aug 2015. <http://www.courthousenews.com/2015/08/17/school-wifi-blamed-for-childs-symptoms.htm>
- **'Ashland'**: 'First US public school district limits wi-fi radiation exposure to students and staff'. 2015 Sep 28. <http://www.digitaljournal.com/pr/2688700>
 - **'young British girl'**: Clarke-Bilings L, 'Mother claims wi-fi allergy killed her daughter and accuses school of failing to safeguard children', *Telegraph*. 2015 Nov 30.
- p. 67 **'reduce the amount of time they spent reading'**: Merga MK and Roni SM, 'The influence of access to eReaders, computers, and mobile phones on children's book reading frequency', *Computers and Education*, 2017 Jun;109:187–96. doi: 10.1016/j.compedu.2017.02.016.
- **'ban was found to improve academic performance'**: Beland L-P and Murphy R, 'Ill communication: technology, distraction, and student performance'. 2015 May. <http://cep.lse.ac.uk/pubs/download/dp1350.pdf>
 - **'poorer literacy'**: Sigman A, 'The impact of screen media on children: a Eurovision for Parliament', in: *Improving the Quality of Childhood in the European Union (volume 3)*. European Council for Steiner Waldorf Education / Alliance for Childhood European Network Group, 2012. <http://www.ecswe.com/publication-qoc-europe-2012.php>
 - **'read by skimming'**: David Mikics, *Slow Reading in a Hurried Age*.

Cambridge, Massachusetts, Belknap Press, 2013.

- **'frequent computer use produced much worse results':** OECD, *Students, Computers, and Learning: making the connection*. 2015. <http://www.oecd.org/publications/students-computers-and-learning-9789264239555-en.htm>
- pp. 67–8 **'neurological damage':** Kardaras N, *Glow Kids: how screen addiction is hijacking our kids — and how to break the trance*. New York, St Martin's Press, 2016.
- p. 68 **'more health and psychological problems':** Grigoriev Y, 'Mobile communications and health of population: the risk assessment, social and ethical problems'. *Environmentalist*. 2012 Jun;32(2):193–200.
- **'less happy and performed less well':** Lepp A, 'The relationship between cell phone use, academic performance, anxiety, and satisfaction with life in college students', *Computers in Human Behavior*. 2014 Feb;31:343–50.
- **'depressed mood':** Ikeda K and Nakamura K, 'Association between mobile phone use and depressed mood in Japanese adolescents: a cross-sectional study', *Environ Health Prev Med*. 2014 May;19(3):187–93. doi: 10.1007/s12199-013-0373-3. Epub 2013 Dec 18.
- **'higher rates of depression':** Thomee S et al., 'Mobile phone use and stress, sleep disturbances, and symptoms of depression among young adults: a prospective cohort study', *BMC Public Health*. 2011 Jan 31;11:66. doi: 10.1186/1471-2458-11-66.
- p. 69 **'brain structural alterations':** Yuan K et al., 'Microstructure abnormalities in adolescents with internet addiction disorder', *PLoS*

One. 2011;6(6):e20708. doi: 10.1371/journal.pone.0020708. Epub 2011 Jun 3.

- **'popcorn brain'**: Cohen E, 'Does life online give you "popcorn brain"?', *CNN*. 2011 Jun 23. <http://edition.cnn.com/2011/HEALTH/06/23/tech.popcorn.brain.ep/index.html>

Chapter 9: Wi-tech Relationships

p. 73 'eight hours a day': Dokoupil T, 'Is the internet making us crazy?', *Newsweek*. 2012 Jul 9.

p. 74 '60 per cent': Lookout, 'Mobile mindset study'. 2012 Jun. <https://www.lookout.com/resources/reports/mobile-mindset>

• **'40 per cent'**: Esure, 'Silent homes'. 2010 Oct 6. http://www.esure.com/media_centre/silent_home.html

• **'having the mobile phone present affected closeness'**:

Przybylski AK and Weinstein N, 'Can you connect with me now?: how the presence of mobile communication technology influences face-to-face conversation quality', *Journal of Social and Personal Relationships*. 2013 May;30(3):237–46.

pp. 74–5 'adults were more absorbed in their phones': Radesky JS et al., 'Patterns of mobile device use by caregivers and children during meals in fast food restaurants', *Pediatrics*. 2014 Apr;133(4):e843–9. doi: 10.1542/peds.2013-3703. Epub 2014 Mar 10.

p. 75 'children are often too engrossed': Sigman A, 'The impact of screen media on children: a Eurovision for Parliament', in: *Improving the Quality of Childhood in the European Union (volume 3)*. European Council for Steiner Waldorf Education / Alliance for

Childhood European Network Group, 2012. <http://www.ecswe.com/publication-qoc-europe-2012.php>

- **'family members are spending more time alone'**: ibid.
- **'home environment'**: Terras MM and Ramsay J, 'Family digital literacy practices and children's mobile phone use', *Front Psychol.* 2016;7:1,957, doi: 10.3389/fpsyg.2016.01957.
- p. **76 'empathy levels declined'**: Sigman A, 'The impact of screen media on children: a Eurovision for Parliament', in: *Improving the Quality of Childhood in the European Union (volume 3)*. European Council for Steiner Waldorf Education / Alliance for Childhood European Network Group, 2012. <http://www.ecswe.com/publication-qoc-europe-2012.php>
- p. **80 'Internet Addiction Disorder'**: Young KS, 'Internet addiction: the emergence of a new clinical disorder', *Cyber Psychol Behav.* 1998;1:237-44.

Chapter 10: Buying for Your Home

- p. **86-7 'metal-coil mattresses'**: Hallberg O et al., 'Cancer incidence vs population average sleep duration on spring mattresses', *Advanced Studies in Medical Sciences.* 2014;2(1):1-15.

Chapter 11: Wireless Travellers

- p. **91 'quadruple the risk of a crash'**: Young K et al., 'Driver distraction: a review of the literature'. 2003 Nov. <http://www.monash.edu/muarc/research/our-publications/muarc206>

Chapter 12: Wireless Neighbourhood

p. 97 **'Federica Lamech'**: Lamech F, 'Self-reporting of symptom development from exposure to radiofrequency fields of wireless smart meters in Victoria, Australia: a case series', *Altern Ther Health Med*. 2014 Nov–Dec;20(6):28–39.

Appendix A: Warnings about Mobile Phones

p. 101 **'American Academy of Pediatrics'**: McInerny TK, letter to Dennis Kucinich. 2012 Dec 12. http://ehtrust.org/wp-content/uploads/2012/12/aap_support_letter_cell_phone_right_to_know_act.pdf

- **'Association for Consumer Protection'**: <http://www.ziaristionline.ro/2017/03/10/pericolele-grave-ale-radiatiilor-telefoanelor-mobile-tabletelor-si-tehnologiei-wireless-feriti-va-copiii-cititi-si-dati-mai-departe-recomandarile-asociatiei-pentru-protectia-consumatorilor-din-rom/> (in Romanian)

- **'Athens Medical Association'**: 'Athens Medical Association recommends reducing electromagnetic wireless radiation to protect public health'. 2017 Apr 1. <https://ehtrust.org/athens-medical-association-recommends-reducing-electromagnetic-wireless-radiation-protect-public-health/>

p. 102 **'Australian Radiation Protection and Nuclear Safety Agency'**: 'How to reduce exposure from mobile phones and other wireless devices', fact sheet 14. 2013.

- **'Austrian Medical Association'**: http://www.aekwien.at/media/Plakat_Handy.pdf (in German)

- **'Belgium':** 'New regulations on the sale of GSM in force from 1 March 2014'. 2014 Feb 11. http://health.belgium.be/portal/19089508_FR?fodnlang=fr#.VonKiFKSY2i
 - **'Cancer Association of South Africa':** Herbst M, 'Fact sheet and position statement on exposure to radiofrequency electromagnetic fields'. 2015 Oct. <http://www.cansa.org.za/files/2015/09/Fact-Sheet-Position-Statement-Exposure-to-Radiofrequency-Electromagnetic-Fields-Sept-2015.pdf>
 - **'Council of Europe':** 'The potential dangers of electromagnetic fields and their effect on the environment', resolution 1815.8.1.1. 2011 May 27. <http://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=17994>
- p. 103 'Departments of Health and Education':** Department of Health brochure on children's use of mobile phones. 2000; Blunket D, letter to schools. 2000 Jul.
- **'Department of Telecommunications':** Marpakwar C, 'Mobiles to be sold with safe use guides', *Mumbai Mirror*. 2013 Jun 13.
 - **'France':** <http://www.assemblee-nationale.fr/14/propositions/pion2065.asp> (in French)
 - **'German Academy of Pediatrics':** *Microwave News*, 2001 Jan/Feb.
- pp. 103–4 'Health Canada':** 'Health Canada offers practical advice on safe cell phone use'. 2011 Oct 4. <http://www.healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2011/13548a-eng.php>
- p. 104 'Israel':** *Haaretz*. 2012 Mar 1.
- **'Italian Society of Preventative and Social Pediatrics':** *Il Tirreno Toscana*. 2016 Jan 14. (in Italian)
 - **'Japan Federation of Bar Associations':** <http://www.nichibenren>.

or.jp/library/ja/opinion/report/data/2012/opinion_120913_4.pdf
(in Japanese)

- **'Ministry of Health'**: <http://kanser.gov.tr/bilgi-dokumanlar/afis-brosur/1506-cep-telefonlar%C4%B1-ve-sa%C4%9Fl%C4%B1%C4%9Fa-etkileri-2015.html> (in Turkish)
- **'National Radiological Protection Board'**: 'Mobile Phones and Health' (The Stewart Report). 2004.
- **'Physicians for the Environment'**: 'Switzerland: waves from wireless communication: Physicians for the Environment requests strict application of the precautionary principle'. 2012 Mar 22. <http://micuxprevenir.blogspot.com/2012/03/switzerland-waves-from-wireless.html>
- p. 105 **'Pittsburgh Cancer Institute'**: 'The case for precaution in the use of cell phones: advice from University of Pittsburgh Cancer Institute based on advice from an international expert panel'. <http://upci.upmc.edu/news/pdf/the-case-for-precaution-in-cell-phone-use.pdf>
- **'Russian National Committee'**: 'Children and mobile phones: the health of the following generations is in danger'. 2008 Apr 14. http://www.radiationresearch.org/pdfs/rncnirp_children.pdf
- **'Senior Public Health Spokesperson'**: *Dagbladet*. 2002 Mar 9. (in Norwegian)
- **'Toronto City Council'**: 'Cell phone use and human health'. 2011 Sep. http://www1.toronto.ca/city_of_toronto/toronto_public_health/healthy_public_policy/hphe/files/pdf/factsheet_cellphone.pdf
- **'Wales'**: 'Mobile phones and base stations'. 2011 Mar. <http://gov.wales/docs/phhs/publications/110407/mobilephoneen.pdf>

Appendix B: Warnings about Cordless Phones

p. 107 'Australian Radiation Protection and Nuclear Safety

Agency': "How to reduce exposure from mobile phones and other wireless devices", fact sheet 14. 2013.

- **'Austrian Medical Association':** <http://www.aerztekammer.at/documents/10618/976981/EMF-Guideline.pdf> (in German)
- **'Benevento Resolution':** 2006 Feb. http://www.icems.eu/benevento_resolution.htm

p. 108 'Ministry of Health': *Haaretz*. 2010 Jul 22.

Appendix C: Warnings about Wi-fi

p. 111 'Ashland': 'First US public school district limits wi-fi radiation exposure to students and staff'. 2015 Sep 28. <http://www.digitaljournal.com/pr/2688700>

- **'American Academy of Environmental Medicine':** 'Wireless radiofrequency radiation in schools'. 2013 Nov 14. <https://aaemonline.org/pdf/WiredSchools.pdf>

p. 112 'Austrian Medical Association': 'Guideline of the Austrian Medical Association for the diagnosis and treatment of EMF-related health problems and illnesses (EMF syndrome)'. 2012 Mar 3.

- **'BC Confederation of Parent Advisory Councils':** 'BC group wants to ban new wi-fi installations in schools', *IT Business.ca*. 2012 May 28. <http://www.itbusiness.ca/news/b-c-group-wants-to-ban-new-wi-fi-installations-in-schools/17942>
- **'BioInitiative Report':** 2007. <http://www.bioinitiative.org/table-of-contents/>

- **'Borgofranco d'Ivrea':** *La Stampa Cronache*. 08.01.16. (in Italian)
- **'Cyprus':** 'Advice of the Cyprus National Committee on Environment and Children's Health'. 2016 Jan 3. <https://www.youtube.com/watch?v=H43IKNjTvRM> (English subtitles); Decree by Ministry of Education, Research, and Religious Affairs. 2017 Jan 31. <http://ehtrust.org/wp-content/uploads/Egkyklios-Jan-17.pdf> (in Greek)
- p. 113 **'France':** <http://www.assemblee-nationale.fr/14/propositions/pion2065.asp> (in French)
- **'Germany':** Answer of the German Federal Government. 2007 Jul 23. http://www.icems.eu/docs/deutscher_bundestag.pdf
- **'Ghent':** *Flanders Today*. 2014 Jul 7.
- **'Israel':** <http://cms.education.gov.il/EducationCMS/Applications/Mankal/EtsMedorim/3/3-6/HoraotKeva/K-2013-3-3-6-11.htm> (in Hebrew)
- **'Navarra':** <http://www.tercerainformacion.es/spip.php?article74999> (in Spanish)
- **'New Jersey Education Association':** Markowitz A and Senn E, 'Minimise health risks from electronic devices', *NJEA Review*. 2016 Nov. http://www.njea.org/issues-and-political-action/health-and-safety/reporter-articles/minimize_health_risks_from_electronic_devices
- p. 114 **'Ontario English Catholic Teachers' Association':** OECTA Provincial Health and Safety Committee, 'A position regarding the use of non-ionizing electromagnetic radiation, including wi-fi, in the workplace'. http://www.magdahavas.com/wordpress/wp-content/uploads/2012/05/WiFiPositionpaper2_OECTA.pdf

- **'Physicians for the Environment':** 'Switzerland: waves from wireless communication: Physicians for the Environment requests strict application of the precautionary principle'. 2012 Mar 22. <http://mieuxprevenir.blogspot.com/2012/03/switzerland-waves-from-wireless.html>
- **'Reykjavik Appeal':** <http://www.cqlpe.ca/pdf/ReykjavikAppeal.pdf>
- **'Salzburg Department of Health':** Oberfeld G, letter. 2005 Dec 5. <http://www.docfoc.com/untitled-XPVa>
- p. 115 **'South Tyrol':** http://www2.landtag-bz.org/documenti_pdf/IDAP_348802.pdf (in German and Italian)
- **'Suffolk County':** *Newsday*. 2014 Dec 2.
- **'Taiwan':** Malm S, 'Does *your* toddler play on an iPad?', *Daily Mail*. 2015 Jan 28. <http://www.dailymail.co.uk/news/article-2929530/Does-toddler-play-iPad-Taiwan-makes-ILLEGAL-parents-let-children-two-use-electronic-gadgets-18s-limit-use-reasonable-lengths.html>
- **'Voice':** e.g. 'Talking point: wi-fi in schools'. 2013 Feb 21. <http://blog.voicetheunion.org.uk/?p=1097>