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# Bibliography

## Bibliography

- [1] Einav L, Levin JD. The data revolution and economic analysis. National Bureau of Economic Research Working Paper, No. 19035. Cambridge, MA; 2013. Available from: <http://www.nber.org/papers/w19035>
- [2] Stanford University. Harnessing the power of data in health. In: Stanford Medicine 2017 Health Trends Report. Stanford: University; 2017
- [3] Internet Source Stats. Internet Usage Statistics: The Internet Big Picture. 30 June 2018 update. 2018. Available from: <https://www.internetworldstats.com/stats.htm> [Accessed: 25 January 2019]
- [4] Shah A. Poverty facts and stats. Global Issues. 7 January 2013. 2013. Available from: <http://www.globalissues.org/article/26/poverty-facts-and-stats> [Accessed: 10 June 2018]
- [5] Cribb J. The case for open science. Broadcast for ABC Radio National Ockham's Razor. 2010. November (unpublished)
- [6] Larsen PO, von Ins M. The rate of growth in scientific publication and the decline in coverage provided by Science citation index. *Scientometrics*. 2010;**84**(3):575-603. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2909426/>
- [7] European Commission. Online Survey on Scientific Information in the Digital Age. Studies and Reports. Luxembourg: Publications Office of the European Union; 2012. Available from: [http://ec.europa.eu/research/science-society/document\\_library/pdf\\_06/survey-on-scientific-information-digital-age\\_en.pdf](http://ec.europa.eu/research/science-society/document_library/pdf_06/survey-on-scientific-information-digital-age_en.pdf)
- [8] McCain KW. Communication, competition, and secrecy: The production and dissemination of research-related information in genetics. *Science, Technology and Human Values*. 1991;**16**(4):491-516
- [9] Tenopir C, Allard S, Douglass K, Aydinoglu A, Wu L, Read E, et al. Data sharing by scientists: Practices and perceptions. *PLoS ONE*. 2011;**6**(6):e21101. DOI: 10.1371/journal.pone.0021101
- [10] OECD. Main Science and Technology Indicators. Available from: <http://www.oecd.org/sti/msti.htm>
- [11] Chesbrough HW. Open Innovation: The New Imperative for Creating and Profiting from Technology. Boston: Harvard Business School Press; 2003
- [12] Chesbrough HW, Vanhaverbeke W, West J, editors. Open Innovation: Researching a New Paradigm. Oxford University Press; 2008
- [13] European Commission. Open Innovation, Open Science, Open to the World. A vision for Europe. Directorate-General for Research and Innovation. Policy statement. Brussels: European Commission, Directorate General for Research and Innovation; 2016
- [14] Fecher B, Friesike S. Open Science: One term, five schools of thought. In: Batling S, Friesike S, editors. *Opening Science: The Evolving Guide on How the Internet is Changing Research*. Springer Open: Collaboration and Scholarly Publishing; 2014
- [15] Suber P. Timeline of the Open Access Movement. 9 February. 2009.

Available from: <http://www.earlham.edu/~peters/fos/timeline.htm>  
[Accessed: 10 June 2018]

[16] National Science Foundation. NSF data sharing policy. 2010. Available from: [http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/aag\\_6.jsp#VID4](http://www.nsf.gov/pubs/policydocs/pappguide/nsf11001/aag_6.jsp#VID4) [Accessed: 10 June 2018]

[17] UK Research and Innovation. <https://www.ukri.org/>

[18] Research Councils of the United Kingdom. Policy on Open Access. 2011. Available from: <http://www.rcuk.ac.uk/research/openaccess/policy/> [Accessed: 10 June 2018]

[19] European Commission. Recommendation SWD (2012) 221 of 17.7.2012 on Access to and Preservation of Scientific Information. Available from: [https://ec.europa.eu/research/science-society/document\\_library/pdf\\_06/recommendation-access-and-preservation-scientific-information\\_en.pdf](https://ec.europa.eu/research/science-society/document_library/pdf_06/recommendation-access-and-preservation-scientific-information_en.pdf)

[20] European Commission. Recommendation C 4890 of 17.7.2012 on access to and preservation of scientific information. Brussels. 17 July 2012

[21] European Commission. Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020, version 3.2. Directorate-General for Research and Innovation. 21 March. The EU Framework Programme for Research and Innovation, version 16 December 2013, 2. 2017. Available from: [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-pilot-guide\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf)

[22] Australian National Data Service. Project Registry Site. Available from: <https://projects.ands.org.au/> [Accessed: 10 June 2018]

[23] Data to Decisions CRC. Available from: <https://www.d2dcrc.com.au/about/> [Accessed: 10 June 2018]

[24] National Health and Medical Research Council. Open Access Policy. Australia. January 2018. Available from: <https://www.nhmrc.gov.au/grants-funding/policy/nhmrc-open-access-policy>

[25] Wellcome Trust. Statement on Genome Data Release. 1997. Available from: <https://wellcome.ac.uk/funding/guidance/statement-genome-data-release> [Accessed: 10 June 2018]

[26] Wellcome Trust. Position Statement in Support of Open and Unrestricted Access to Published Research. 2005. Available from: <http://www.wellcome.ac.uk/docWTD002766.html> [Accessed: 10 June 2018]

[27] Swam A. Policy Guidelines for the Development and Promotion of Open Access. Paris: UNESCO; 2012

[28] Fitzgerald AM. Open Access Policies, Practices and Licensing: A Review of the Literature in Australia and Selected Jurisdictions. Brisbane, Queensland: School of Law, Queensland University of Technology; 2009

[29] UNESCO. Revised draft strategy on UNESCO's contribution to the promotion of open access to scientific information and research. 20 October adopted at the 36th session of the UNESCO General Conference held in Paris on 20 October 2011. 2011. Available from: <http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/images/GOAP/OAF2011/213342e.pdf>

[30] UNESCO. Open Access to Scientific Information. Available from: <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-access-to-scientific-information/>

[31] Wilkinson MD, Dumontier M, Aalbersberg IJ, Appleton G, Axton M, Baak A, et al. The FAIR guiding principles for scientific data

- management and stewardship. *Scientific Data*. 2016;3:160018. DOI: 10.1038/sdata.2016.18. <https://www.nature.com/articles/sdata201618>
- [32] Castelfranchi C. Comment. Six critical remarks on science and the construction of the knowledge society. *Journal of Science Communication*. SISSA—International School for Advanced Studies. 2007;1-3
- [33] Gibbons M, Limoges C, Nowotny H, Schwartzman S, Scott P, Trow M. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: SAGE Publications; 1994
- [34] Merton R. Science and technology in a democratic order. *Journal of Legal and Political Sociology*. 1942;1:115
- [35] Polanyi M. The republic of science. *Minerva*. 1962;1(1):54-73
- [36] Castells M. *The Rise of the Network Society*. Cambridge, Mass/Oxford: Blackwell Publishers; 1996
- [37] Radder H. *The Commodification of Academic Research*. Pittsburgh, PA: University of Pittsburgh Press; 2010. p. 9. Available from: <http://upress.pitt.edu/htmlSourceFiles/pdfs/9780822962267exr.pdf>
- [38] Lessig L. *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*. New York: Penguin; 2004
- [39] Mayer-Schonberger V, Cukier K. *Big Data: A Revolution That Will Transform How We Live, Work, and Think*. Boston: Houghton Mifflin Harcourt; 2013
- [40] Weinberger D. *Too Big to Know: Rethinking Knowledge Now that the Facts Aren't the Facts, Experts Are Everywhere, and the Smartest Person in the Room Is the Room*. New York: Basic Books; 2012
- [41] Academies N. *Facilitating Interdisciplinary Research*. Washington: National Academy Press, Committee on Science, Engineering, and Public Policy; 2005. p. 2. DOI: 10.17226/11153
- [42] European Parliament. Regulation (EU) 2016/679 on the Protection of Natural Persons with Regard to the Processing of Personal data and on the Free Movement of Such Data; 27 April 2016
- [43] General Data Protection Regulation. Directive 95/46/EC Official Journal L. 4 May 2016;119/2:1-88
- [44] The European Data Protection. Directive 2002/58/EC on privacy and electronic communication. 12 July 2002
- [45] Fitzgerald BF. *Legal Framework for E-Research: Realising the Potential*. Sydney: Sydney University Press; 2008
- [46] Lessig L. *The Future of Ideas: The Fate of the Commons in a Connected World*. Random House; 2001
- [47] Willinsky J. *The Access Principle: The Case for Open Access to Research and Scholarship*. Massachusetts Institute of Technology; 2006
- [48] Suber P. Open access to the scientific journal literature. *Journal of Biology*. 2002;1(1):3
- [49] Wilbanks J. Another reason for opening access to Research. *British Medical Journal*. 2006;333(7582):1306-1308
- [50] US National Research Council. *Bits of Power*. Washington: US National Research Council; 1997
- [51] OECD. *OECD Principles and Guidelines for Access to Research Data from Public Funding*. Paris: OECD Publications; 2007

- [52] Lessig L. Code 2.0. Basic Books. 2006. p. 198
- [53] Harnad S et al. The access/impact problem and the green and gold roads to open access. *Serials Review*. 2004;**30**(4):310
- [54] Ginsparg P. First steps towards electronic Research communication. *Computers in Physics*. 1994;**8**(4):390-396. Available from: <http://dl.acm.org/citation.cfm?id=187178.187185>
- [55] Bernard N, Geller M. A prehistory of electronic journals: The EIES and BLEND projects. In: Tuttle M, Darling KD, editors. *Advances in Serials Management*. Greenwich, CT: JAI Press; 1995. pp. 27-47
- [56] Budapest Open Access Initiative. Budapest Declaration on Open Access. 2002. Available from: <http://www.budapestopenaccessinitiative.org/read>
- [57] Korsmo FL. The origins and principles of the world data center system. *Data Science Journal*. 2010;**8**:55-65. Available from: [https://www.researchgate.net/publication/270166513\\_The\\_Origins\\_and\\_Principles\\_of\\_the\\_World\\_Data\\_Center\\_System](https://www.researchgate.net/publication/270166513_The_Origins_and_Principles_of_the_World_Data_Center_System)
- [58] National Academies. The International Geophysical Year. Available from: <http://www.nas.edu/history/igy/>
- [59] Antarctic Treaty. 1959. Available from: <https://www.ats.aq/e/ats.htm> [Accessed: 10 June 2016]
- [60] Lide DR, Wood GH. CODATA @ 45 Years: 1966 to 2010, the Story of the ICSU Committee on Data for Science and Technology (CODATA) from 1966 to 2010. Paris: CODATA; 2012. Available from: <http://www.codata.org/about/CODATA@45years.pdf>
- [61] Global Change Research Program. Policy statements on data management for global change research. Policy Statements. Washington; 2 July 1991
- [62] ICSU/CODATA. Scientific Access to Data and Information. Available from: [http://www.codata.org/codata/data\\_access/policies.html](http://www.codata.org/codata/data_access/policies.html) [Accessed: 10 June 2018]
- [63] The Berlin Declaration. The Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. Adopted on 22 October 2003. Max Planck Institute. Available from: <http://openaccess.mpg.de/Berlin-Declaration> [Accessed: 10 June 2018]
- [64] Crane D. *Invisible Colleges: Diffusion of Knowledge in Scientific Communities*. Chicago: University of Chicago Press; 1972
- [65] Inspire. High-energy physics literature database. Available from: <http://inspirehep.net/> [Accessed: 10 June 2018]
- [66] OECD. Declaration on Access to Research Data from Public Funding. OECD Legal Instruments. 2004. Available from: <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=157>
- [67] OECD. Science, Technology and innovation for the 21st century. Meeting of the OECD Committee for Scientific and Technological Policy at Ministerial Level, 29–30 January 2004—Final communique. 2004. Available from: <http://www.oecd.org/science/sci-tech/sciencetechnologyandinnovationforthe21stcenturymeetingoftheoecdcommitteeforscientificandtechnologicalpolicyatministeriallevel29-30january2004-finalcommunique.htm>
- [68] OECD. OECD Principles and Guidelines for Access to Research Data from Public Funding. 2017. Available

from: <https://www.oecd.org/sti/sci-tech/38500813.pdf>

[69] National Science Foundation. Scientists Seeking NSF Funding Will Soon Be Required to Submit Data Management Plans. Media release. 10 May 2010. Available from: [https://www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=116928](https://www.nsf.gov/news/news_summ.jsp?cntn_id=116928)

[70] Jankowski N, editor. E-Research: Transformation in Scholarly Practice Routledge Advances in Research Methods. London: Routledge; 2009

[71] Royal Society. Science as an open enterprise. The Royal Society Policy Centre Report. 02/12/2012. Available from: <https://royalsociety.org/topics-policy/projects/science-public-enterprise/report/>

[72] Wouters P, Beaulieu A. Imagining e-science beyond computation. In: Hine C, editor. New Infrastructures for Knowledge Production: Understanding e-Science. London: Information Science Publishing; 2006. pp. 48-70

[73] Kahin B, Foray D, editors. Advancing Knowledge and the Knowledge Economy. MIT Press; 2006

[74] Neef D. Knowledge Economy: Resources for the Knowledge-Based Economy. Butterworth-Heinemann; 1997

[75] Westernen KI, editor. Foundations of the Knowledge Economy: Innovation. Learning and Clusters: Edward Elgar Publishing; 2012

[76] Blair AM. Too Much to Know: Managing Scholarly Information before the Modern Age. New Haven, CT: Yale University Press; 2010

[77] Brown JS, Paul D. The Social Life of Information. Boston: Harvard Business School Press; 2000

[78] Burke P. A Social History of Knowledge: From Gutenberg to Diderot. Cambridge, UK: Polity Press; 2000

[79] Burke P. A Social History of Knowledge. II: From the Encyclopaedia to Wikipedia. Cambridge, UK: Polity Press; 2012

[80] Case DO. Looking for Information: A Survey of Research on Information Seeking, Needs, and Behaviour. 2nd ed. San Diego: Academic Press; 2006

[81] Day RE. The Modern Invention of Information: Discourse, History, and Power. Carbondale: Southern Illinois University Press; 2001

[82] Ingwersen P, Kalervo J. The Turn: Integration of Information Seeking and Retrieval in Context. Dordrecht: Springer; 2005

[83] Liu A. The Laws of Cool: Knowledge Work and the Culture of Information. Chicago: University of Chicago Press; 2004

[84] Meadows J. Understanding Information. Muenchen: K. G. Saur Verlag; 2001

[85] Svenonius E. The Intellectual Foundation of Information Organization. Cambridge, MA: MIT Press; 2000

[86] Buckland MK. Information as thing. Journal of the American Society for Information Science American Society for Information Science. 1991;42:351-360

[87] Furner J. Conceptual analysis: A method for understanding information as evidence, and evidence as information. Archival Science. 2004;4:233-265

[88] E-learn. Making Sense of Data and Information: A Volume in Management Extra. Taylor and Francis/Elsevier; 2007

- [89] Wessels B et al. Open Data and the Knowledge Society. Leiden: Amsterdam University Press; 2017
- [90] Argote L, Ingram P. Knowledge transfer: A basis for competitive advantage in firms. *Organizational Behavior and Human Decision Processes*. 2000;82(1):150-169
- [91] Cohen WM, Levinthal DA. Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*. 1991; 35:128-152
- [92] Mowery DC, Oxley J, Silverman B. Strategic alliances and interfirm knowledge transfer. *Strategic Management Journal*. 1996;17(2)
- [93] Consultative Committee for Space Data Systems. Reference model for an open archival information system. 2012; 2. Available from: <https://public.ccsds.org/Pubs/650x0m2.pdf>
- [94] The Consultative Committee for Space Data Systems (CCSDS). Reference model for an open archival information system (OAIS). Consultative Committee for Space Data Systems. 2:1-12. Available from: <http://public.ccsds.org/publications/archive/650x0b1.pdf>; <http://public.ccsds.org/publications/RefModel.aspx> [Accessed: 10 June 2018]
- [95] Drucker PF. *The Age of Discontinuity: Guidelines to our Changing Society*. New York, NY: Harper & Row; 1969
- [96] Mansell R, Wehn U, editors. *Knowledge Societies: Information Technology for Sustainable Development*. Oxford: Published for the United Nations Commission on Science and Technology for Development by Oxford University Press; 1998
- [97] Stehr N. *Knowledge Societies: The Transformation of Labour, Property and Knowledge in Contemporary Society*. London: Sage; 1994
- [98] Merton R. *The Sociology of Science: Theoretical and Empirical Investigations*. University of Chicago Press; 1973. p. 175
- [99] Ritzer G. *The Blackwell Companion to Major Contemporary Social Theorists*. Malden, Massachusetts/Oxford: Blackwell; 1973. p. 13
- [100] Kuhn, Thomas S. *The Structure of Scientific Revolutions*. 3rd ed. Chicago, IL: University of Chicago Press; 1996
- [101] Bronowski J. *The Origins of Knowledge and Imagination*. Yale University Press; 1978
- [102] Toffler A. *Third Wave*. Bantam Books; 1980
- [103] Toffler A. *Previews and Premises: An Interview with the Author of Future Shock and the Third Wave*. Black Rose Books; 1987
- [104] Australian Broadcasting Corporation. *Life Matters*. Radio program, interview with Norman Swann, Radio National; 5 March 1998
- [105] Schimank U. Wissenschaft als gesellschaftliches Teilsystem. In: Maasen S, Kaiser M, Reinhart M, Sutter B, editors. *Handbuch Wissenschaftssoziologie*. Wiesbaden: Springer Fachmedien; 2012. pp. 113-123. Available from: [https://link.springer.com/chapter/10.1007/978-3-531-18918-5\\_9](https://link.springer.com/chapter/10.1007/978-3-531-18918-5_9)
- [106] Nentwich M. *Cyberscience: Research in the Age of the Internet*. Vienna: Austrian Academy of Sciences Press; 2003. pp. 63-64
- [107] Fuller S. In search of vehicles for knowledge governance: On the need for institutions that creatively destroy social

- capital. In: Stehr N, editor. *The Governance of Knowledge*. Transaction: New Brunswick, NJ; 2004. pp. 41-78
- [108] Ciuriak D. *The Economics of Data: Implications for the Data-Driven Economy*. Centre for International Governance Innovation; 2018 5 March. Available from: <https://www.cigionline.org/articles/economics-data-implications-data-driven-economy>
- [109] Gasser U, Faris R, Heacock R. *Internet Monitor 2013: Reflections on the Digital World*. Berman Center for Internet and Society Research Publication No. 27. Harvard University; 2013
- [110] Global Issues. *Poverty Facts and Stats*. 2013. Available from: <http://www.globalissues.org/article/26/poverty-facts-and-stats> [Accessed: 10 June 2018]
- [111] Meho L, Yang K. Impact of data source on citation counts and rankings of LIS faculty: Web of Science versus Scopus and Google scholar. *Journal of the American Society for Information Science and Technology*. 2007;**58**(13): 2015-2125
- [112] Meho L. The rise and rise of citation analysis. *Physics World*. 2007; **29**(1):32
- [113] Lemley MA, Shapiro C. Probabilistic patents. *Journal of Economic Perspectives*. 2005;**19**(2): 75-98
- [114] Houghton J, Sheehan P. Estimating the potential impacts of Open access to research findings. *Economic Analysis and Policy*. 2009;**29**(1):127-142
- [115] Piwowar HA, Day RS, Frisma DB. Sharing detailed research data is associated with increased citation rate. *PLoS One*. 2007;**2**(3):308
- [116] Roy ASA. Stifling new cures: The true cost of lengthy clinical drug trials. In: FDA Report. Manhattan Institute for Policy Research; 2012
- [117] Oldenburg H. Philosophical Transactions of the Royal Society. 1665; **1**(1). Available from: <http://rstl.royalsocietypublishing.org/content/1/1/0.2.extract>
- [118] Rao C. Man of Science, Man of God. Institute for Creation Research. 2008. Available from: <http://www.icr.org/article/science-man-god-robert-boyle/> [Accessed: 10 June 2018]
- [119] National Research Council. *Preparing the Workforce for Digital Curation*. Washington, DC: National Academy Press; 2015. Available from: <http://www.nap.edu/catalog/18590/preparing-theworkforce-for-digital-curation>
- [120] Nelson JS. U.S. Geological Survey. Earth Resources Observation and Science (EROS) Center—Fiscal Year 2010 Annual Report. U.S. Geological Survey. 2011. Available from: <http://pubs.usgs.gov/of/2011/1057/pdf/of2011-1057.pdf>
- [121] Uhler PF, Schröder P. Open data for global science. *Data Science Journal*. 2007;**6**:36–53. Available from: <http://datascience.codata.org/articles/abstract/10.2481/dsj.6.OD36/>
- [122] National Research Council. *The Case for International Sharing of Scientific Data: A Focus on Developing Countries: Proceedings of a Symposium*. Washington, DC: The National Academies Press; 2012. DOI: 10.17226/17019
- [123] European Commission. *Enter the Data Economy: EU Policies for a Thriving Data Ecosystem*. EPSC Strategic Notes, Issue 21. 2017. Available from: [https://ec.europa.eu/epsc/sites/epsc/files/strategic\\_note\\_issue\\_21.pdf](https://ec.europa.eu/epsc/sites/epsc/files/strategic_note_issue_21.pdf)
- [124] Mandel M. Data, Trade, and Growth, TPRC 412: The 41st Research

- Conference on Communication. The Progressive Policy Institute: Information and Internet Policy; 2013
- [125] European Commission. Fact Sheet Data cPPP. 2014. Available from: [https://ec.europa.eu/research/industrial\\_technologies/pdf/factsheet-cppp\\_en.pdf](https://ec.europa.eu/research/industrial_technologies/pdf/factsheet-cppp_en.pdf)
- [126] Rossi B. The Value of Big Data and the Internet of Things to the UK Economy. Information Age. 2016. Available from: <https://www.information-age.com/big-data-and-internet-things-add-322bn-uk-economy-2020-report-123461008/> [Accessed: 10 June 2018]
- [127] International Data Corporation Research. Worldwide Big Data Technology and Services Forecast, 2015–2019. October 2015. Available from: <https://www.idc.com/getdoc.jsp?containerId=US40803116> [Accessed: 10 June 2018]
- [128] Pollock R. The Economics of Public Sector Information, CWPE 0920. Cambridge: University of Cambridge; 2009. Available from: <http://www.econ.cam.ac.uk/dae/repec/cam/pdf/cwpe0920.pdf>
- [129] Weiss P. Borders in Cyberspace: Conflicting Public Sector Information Policies and their Economic Impacts. Silver Spring: National Oceanic and Atmospheric Administration; 2002
- [130] Vickery G. Review of Recent Studies on PSI Reuse and Related Market Developments. Brussels: European Commission; 2010a. Available from: [http://ec.europa.eu/newsroom/dae/document.cfm?doc\\_id=1093](http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=1093)
- [131] Dekkers M et al. MEPSIR: Measuring European Public Sector Information Resources. Brussels: European Commission; 2006. Available from: [http://www.epsipus.net/psi\\_library/reports/mepsir\\_measuring\\_european\\_public\\_sector\\_resources\\_report](http://www.epsipus.net/psi_library/reports/mepsir_measuring_european_public_sector_resources_report)
- [132] PIRA. Commercial Exploitation of Europe's Public Sector Information. Brussels: European Commission; 2000
- [133] DotEcon. The Commercial Use of Public Information (CUPI). 2006. <http://www.oft.gov.uk/OFTwork/publications/publication-categories/reports/consumerprotection/oft861>
- [134] Houghton J. Costs and Benefits of Public Sector data Provision. Commissioned Report. Melbourne: Australian National Data Service; 2011
- [135] Beagrie N et al. Economic Evaluation of Research Data Infrastructure. London: Economic and Social Research Council; 2012. Available from: [http://www.esrc.ac.uk/\\_images/ESDS\\_Economic\\_Impact\\_Evaluation\\_tcm8-22229.pdf](http://www.esrc.ac.uk/_images/ESDS_Economic_Impact_Evaluation_tcm8-22229.pdf)
- [136] Beagrie N, Houghton JW. The Value and Impact of the Archaeology Data Services: A Study and Methods for Enhancing Sustainability. Bristol and London: Joint Information Systems Committee; 2013a. Available from: <http://www.jisc.ac.uk/whatwedo/programmes/preservation/ADSImpact.aspx> [Accessed: 10 June 2018]
- [137] Beagrie N, Houghton JW. The Value and Impact of the British Atmospheric Data Centre. Bristol and London: Joint Information Systems Committee and the Natural Environment Research Council UK; 2013b. Available from: [http://www.jisc.ac.uk/whatwedo/programmes/di\\_directions/strategicdirections/badc.aspx](http://www.jisc.ac.uk/whatwedo/programmes/di_directions/strategicdirections/badc.aspx) [Accessed: 10 June 2018]
- [138] Beagrie N, Houghton JW. The Value and Impact of Data Sharing and Curation: A Synthesis of Three Recent Studies of UK Research Data Centres. Bristol and London: JISC; 2014.

Available from: <http://repository.jisc.ac.uk/5568/> [Accessed: 10 June 2018]

[139] Beagrie N, Houghton JW. The Value and Impact of the European Bioinformatics Institute. Full Report to EMBL-EBI by Charles Beagrie Limited. 2016. Available from: <http://www.beagrie.com/EBI-impact-report.pdf>

[140] Houghton J, Gruen N. Open Research Data. Report prepared for the Australian National Data Service. 2014

[141] Stallman RM. In: Gay J, editor. Free Software, Free Society: Selected Essays of Richard M. Stallman. Boston: The Free Software Foundation; 2002

[142] Berman F, Cerf V. Who will pay for public access to research data? *Science*. 2013;**341**:616-617. Available from: [http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga\\_084791.pdf](http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_084791.pdf)

[143] Google Blogscoped. Google Stops Research Datasets Program. 2008. Available from: <http://blogscoped.com/archive/2008-12-23-n33.html>

[144] European Commission. European Open Science Cloud. Available from: <https://ec.europa.eu/research/openscience/index.cfm?pg=open-science-cloud> [Accessed: 10 June 2018]

[145] European Open Science Cloud (EOSC). Declaration and its Principles, Guiding the Implementation of the EOSC. adopted at the EOSC Summit of 12 June 2017 in Brussels. 2017. Available from: [https://ec.europa.eu/research/openscience/pdf/eosc\\_declaration.pdf#view=fit&pagemode=none](https://ec.europa.eu/research/openscience/pdf/eosc_declaration.pdf#view=fit&pagemode=none)

[146] Organisation for Economic Cooperation and Development. Research funding cuts threaten global innovation, *University World News*, Issue 00493. 2016, 9 December 2016. Available from: <http://www.universityworldnews.com/article.php?story=20161209233443636>

[147] Mervis J. Data check: U.S. government share of basic research funding falls below 50%. *Science*. 2017. Available from: <http://www.sciencemag.org/news/2017/03/data-check-us-government-share-basic-research-funding-falls-below-50>

[148] Rohn J, Curry S, Steele A. Research funding slumps below 0.5% GDP: putting us last in the G8. *The Guardian*. 2015. Available from: <https://www.theguardian.com/science/occams-corner/2015/mar/13/science-vital-uk-spending-research-gdp>

[149] Angell M. *The Truth behind the Drug Companies: How They Deceive Us and What to Do about It*. New York: Random House; 2004

[150] OECD. Public Research Policy, STIL Outlook. Available from: <https://www.oecd.org/sti/outlook/e-outlook/stipolicyprofiles/competencestoinnovate/publicresearchpolicy.html> [Accessed: 10 June 2018]

[151] Weiss L. *America Inc.: Innovation and Enterprise in the National Security State*. Cornell University Press; 2014

[152] Department of Education and Training. *Finance 2016: Financial Reports of Higher Education Providers*. Report, Australia. 2018. Available from: <https://docs.education.gov.au/node/47911>

[153] National Human Genome Research Institute. *A Brief History of the Human Genome Project*. 2012. Available from: <http://www.genome.gov/12011239> [Accessed: 10 June 2018]

[154] Cook-Deegan R, Heaney C. Patents in genomics and human genetics. *Annual Review of Genomics and Human Genetics*. 2010;**11**:383-425. DOI:

10.1146/annurev-genom-082509-141811

[155] Rogers J. Genome sequencing: Wellcome news? In: Radford T, editor. *Frontiers 03: New Writing on Cutting-Edge Science by Leading Scientists*. Trowbridge: Atlantic Press; 2003

[156] Tripp S, Grueber M. *Economic Impact of the Human Genome Project*. Columbus: Battelle Memorial Institute; 2011

[157] Pool S, Erickson J. The High Return on Investment for Publicly Funded Research, Center for American Progress. 10 December 2012. Available from: <https://www.americanprogress.org/issues/economy/reports/2012/12/10/47481/the-high-return-on-investment-for-publicly-funded-research/>

[158] Mazzucato M. *The entrepreneurial state: Debunking the public vs. private myth in risk and innovation*. Anthem Press; 2013

[159] Mazzucato M. *A Mission-Oriented Approach to Building the Entrepreneurial State*. A report commissioned by Innovate UK. 2015. Available from: <https://www.gov.uk/government/publications/a-mission-oriented-approach-to-building-the-entrepreneurial-state>

[160] Beijing Genomics Institute. Rapid open-source genomic analyses accelerated global studies on deadly *E. coli* O104:H4. *Science Daily*. 2011a. Available from: <https://www.sciencedaily.com/releases/2011/07/110727171501.htm> [Accessed: December 28, 2013]

[161] Lynn TE. China helps unravel new *E. coli* for embattled Europe. *Reuters*. 3 June 2011. Available from: <http://www.reuters.com/article/2011/06/03/us-ecoli-china-idUSTRE75224620110603> [Accessed: December 28, 2013]

[162] NASA. *Global Positioning System History*. 2012. Available from: [https://www.nasa.gov/directorates/heo/scan/communications/policy/GPS\\_History.html](https://www.nasa.gov/directorates/heo/scan/communications/policy/GPS_History.html) [Accessed: June 10, 2018]

[163] GPS World Staff. *The Economic Benefits of GPS*. *GPS World*. 1 September 2015. Available from: <http://gpsworld.com/the-economic-benefits-of-gps/>

[164] Valdivia WD. *University Start-ups: Critical for Improving Technology Transfer*. The Brookings Institution. 20 November 2013. Available from: <https://www.brookings.edu/research/university-start-ups-critical-for-improving-technology-transfer/> [Accessed: June 10, 2018]

[165] Hugget B. Top US universities, institutes for life sciences in 2015. *Nature Biotechnology*. 2017;35:203

[166] Cervantes M, Meissner D. Commercialising public research under the Open innovation model: New trends. *OECD Foresight and STI Governance*. 2014;8(3):70-81. Available from: [https://www.researchgate.net/publication/290945411\\_Commercialising\\_Public\\_Research\\_under\\_the\\_Open\\_Innovation\\_Model\\_New\\_Trends](https://www.researchgate.net/publication/290945411_Commercialising_Public_Research_under_the_Open_Innovation_Model_New_Trends)

[167] Borgman C. *Big Data, Little Data, No Data: Scholarship in the Networked World*. Cambridge, MA: The MIT Press; 2015

[168] Chesbrough HW. *Open innovation: A new paradigm for understanding industrial innovation*. 2006

[169] Bromley A. *Data Management for Global Change Research Policy Statements*. US Global Change Research Program. 1991. Available from: <https://digital.library.unt.edu/ark:/67531/metadc11862/> [Accessed: June 10, 2018]

[170] Bermuda Meeting Affirms Principle of Data Release. 1997.

Available from: <https://www.genome.gov/25520385/online-education-kit-1997-bermuda-meeting-affirms-principle-of-data-release/>

[171] ICSU/CODATA Ad Hoc Group on Data and Information. Access to Databases: Principles for Science in the Internet Era. 2002. Available from: [http://www.codata.info/resources/databases/data\\_access/principles.html](http://www.codata.info/resources/databases/data_access/principles.html)

[172] Berlin Declaration. The 'Signatories'. Max Planck Institute. Available from: <http://openaccess.mpg.de/319790/Signatories>.

[173] World Library of Science. A Global Community for Science Education. Available from: <http://www.nature.com/wls>

[174] OECD Declaration on Access to Research Data from Public Funding. Available from: <http://acts.oecd.org/Instruments/ShowInstrumentView.aspx?InstrumentID=157>

[175] Organisation for the Economic Cooperation and Development. OECD Principles and Guidelines for Access to Research Data from Public Funding. OECD Press; 2010. pp. 9-11

[176] Denton Declaration: An Open Data Manifesto. Adopted at the University of North Texas on 22 May 2012. Available from: <https://openaccess.unt.edu/denton-declaration>

[177] Family Educational Rights and Privacy Act (FERPA). (20 U.S.C. § 1232g; 34 CFR Part 99)

[178] Health Insurance Portability and Accountability Act (HIPAA) of 1996; 2008

[179] Toronto International Data Release Workshop Authors. Prepublication data sharing. *Nature*. 2009; **461**:168. DOI: 10.1038/461168a

[180] Shoefield PN et al. Post-publication sharing of data and tools. *Nature*. 2009; **461**:171-173

[181] Panton Principles. Panton Principles for Open Data in Science. Available from: <http://pantonprinciples.org/> [Accessed: June 10, 2018]

[182] Research Data Alliance. Legal interoperability of research data: Principles and implementation guideline. 8 September 2016. Available from: [http://www.codata.org/uploads/Legal%20Interoperability%20Principles%20and%20Implementation%20Guidelines\\_Final2.pdf](http://www.codata.org/uploads/Legal%20Interoperability%20Principles%20and%20Implementation%20Guidelines_Final2.pdf)

[183] National Institutes of Health (2013). Data Sharing Policies. Available from: [http://www.nlm.nih.gov/NIHbmic/nih\\_data\\_sharing\\_policies.html](http://www.nlm.nih.gov/NIHbmic/nih_data_sharing_policies.html) [Accessed: June 10, 2018]

[184] Insel T. 'Open Data', Director's Blog, National Institute of Mental Health. 13 June 2014. Available from: <http://www.nimh.nih.gov/about/director/2013/open-data.shtml>

[185] National Science Foundation. (n.d). Dissemination and Sharing of Research Results. Division of Institution and Award Support. Available from: <http://www.nsf.gov/bfa/dias/policy/dmp.jsp>. [Accessed: June 10, 2018]

[186] Tufts University. Research Guides@Tufts, Federal Funding Agencies: Data Management and Sharing Policies. 2013

[187] European Commission. Riding the Wave: How Europe Can Gain from the Rising Tide of Scientific data. Final report of the High level Expert Group on Scientific Data. October 2010c

[188] European Commission. A Digital Agenda for Europe, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the

Regions, COM/2010/0235 Final. 2010a. 245. Available from: <https://eur-lex.europa.eu/procedure/EN/199329>

[189] European Commission. Europe 2020 Flagship Initiative Innovation Union. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM2010b. p. 546. Available from: <https://eur-lex.europa.eu/procedure/EN/199719>

[190] European Commission. A Reinforced European Research Area Partnership For Excellence AND Growth. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM2012b. p. 392. Available from: <https://eur-lex.europa.eu/procedure/EN/201831>

[191] European Commission. Towards better access to scientific information: Boosting the benefits of public investments in research. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions, COM/2012/401 final. 2012c. 4890. Available from: [https://ec.europa.eu/research/science-society/document\\_library/pdf\\_06/era-communication-towards-better-access-to-scientific-information\\_en.pdf](https://ec.europa.eu/research/science-society/document_library/pdf_06/era-communication-towards-better-access-to-scientific-information_en.pdf)

[192] Margoni T, Caso R, Ducato R, Guarda P, Moscon V. Open Access, Open Science, Open Society. University of Glasgow; 2016. Available from: <http://eprints.gla.ac.uk/129357/>

[193] Article 43.2 of Regulation (EU) No 1290/2013 of the European Parliament and of the Council Laying Down the Rules for Participation and Dissemination in Horizon 2020, the Framework Programme for Research and Innovation (2014–2020) and Repealing Regulation (EC) No 1906/

2006. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32013R1290>

[194] European Research Council. Open Access Guidelines for Researchers Funded by the ERC. June 2012. Available from: [http://erc.europa.eu/sites/default/files/document/file/open\\_access\\_policy\\_researchers\\_funded\\_ERC.pdf](http://erc.europa.eu/sites/default/files/document/file/open_access_policy_researchers_funded_ERC.pdf)

[195] Europe PMC. Available from: <http://europepmc.org/> [Accessed: June 10, 2018]

[196] Cornell University Library. Arxiv. Available from: <http://arxiv.org/> [Accessed: June 10, 2018]

[197] UK Research and Innovation. About us. 2018. Available from: <https://www.ukri.org/about-us/>

[198] RCUK Common Principles on Data. Available from: <http://www.rcuk.ac.uk/research/datapolicy/>

[199] Ryan B. Supporting research data management costs through grant funding. Blog, Research Councils UK, 9 July 2013. Available from: <http://blogs.rcuk.ac.uk/2013/07/09/supporting-research-data-management-costs-through-grant-funding/>

[200] Tanner S. When Data Hits the Fan. Available from: <http://simon-tanner.blogspot.com.au/2013/07/uk-government-promotes-open-data-public.html> [Accessed: June 10, 2018]

[201] Digital Curation Centre. Overview of Research Funder Policies. Available from: <http://www.dcc.ac.uk/resources/policy-and-legal/overview-funders-data-policies#sthash.NkYRudy0.dpuf>

[202] Research Councils UK. Policy on Open Access. 2011. Available from: <http://www.rcuk.ac.uk/research/openaccess/policy/>

- [203] Davidson J. Chapter 5: Supporting early-career researchers. In: Mackenzie A, Martin L, editors. *Mastering Digital Librarianship*. Facet Publishing; 2014. pp. 82-102
- [204] Australian National Data Service. Projects funded under the 'Seeding the Commons Program'. Available from: <https://projects.ands.org.au/getAllProjects.php?start=sc>
- [205] Australian Research Council. The Australian Code for the Responsible Conduct of Research. Available from: [http://www.nhmrc.gov.au/\\_files\\_nhmrc/publications/attachments/r39.pdf](http://www.nhmrc.gov.au/_files_nhmrc/publications/attachments/r39.pdf)
- [206] Australian Research Council. The ARC Centre of Excellence Funding Agreement. Available from: [http://www.arc.gov.au/ncgp/ce/ce\\_fundingagreement.htm](http://www.arc.gov.au/ncgp/ce/ce_fundingagreement.htm)
- [207] Government of Canada. Tri-Agency Open Access Policy on Publications. December 2016. Available from: <http://www.science.gc.ca/default.asp?lang=En&n=F6765465-1>
- [208] Dryad Digital Repository. Available from: <http://datadryad.org/> [Accessed: June 10, 2018]
- [209] Nature. Availability of Data, Materials and Methods. Editorial policy. N. D. Available from: <http://www.nature.com/authors/policies/availability.html> [Accessed: June 10, 2018]
- [210] Journal of the Royal Society Interface. Available from: <http://rsif.royalsocietypublishing.org/site/misc/preparing-articles.xhtml#question15> [Accessed: June 20, 2015]
- [211] Vasilevsky et al. Reproducible and reusable research: Are journal data sharing policies meeting the mark? *Peer J*. 2017;5:e3208
- [212] Vasilevsky N, Brush M, Paddock H, Ponting L, Tripathy S, Larocca G, et al. On the reproducibility of science: Unique identification of research resources in the biomedical literature. *Peer J*. 2013;1:e148
- [213] Xiaolin Z. Development of open access in China: Strategies, practices, challenges. *Insight*. 2014;27:55-60. DOI: 10.1629/2048-7754.111
- [214] van Noorden R. Chinese agencies announce open access policies. *Nature*. 2014. DOI: 10.1038/nature.2014.15255
- [215] Chinese Academies of Sciences. The Institutional Repositories Grid. Available from: <http://www.irgrid.ac.cn/> [Accessed: June 10, 2018]
- [216] Organisation for Economic Cooperation and Development OECD. Main Science and Technology Indicators (2014 data). 2014. Available from: <http://www.oecd.org/sti/msti.htm>
- [217] Eurostat (Statistical Office of the European Union). R & D Expenditure. Statics Explained. March 2018. Available from: [http://ec.europa.eu/eurostat/statistics-explained/index.php/R\\_%26\\_D\\_expenditure](http://ec.europa.eu/eurostat/statistics-explained/index.php/R_%26_D_expenditure)
- [218] Kenya Open Data. Home page. Available from: <https://opendata.go.ke>
- [219] Morocco Open Data. Home page. Available from: <http://data.gov.ma>
- [220] Open Data Tunisia. Home page. <http://www.data.gov.tn>
- [221] Open Government Tanzania. Home page. Available from: <http://www.opengov.go.tz>
- [222] Transparency Sierra Leone. Available from: <http://www.transparencysierraleone.gov.sl>
- [223] Edo State Government. Official Data Repository Portal. Available from: <http://data.edostate.gov.ng/>

- [224] The Nigeria Extractive Industries Transparency Initiative. Available from: <http://neiti.org.ng/>
- [225] Ghana Open Data. Available from: <http://data.gov.gh>
- [226] Open Data for Africa. Home page. Available from: <http://opendataforafrica.org/>
- [227] English Oxford Living Dictionaries Available from: <https://en.oxforddictionaries.com/definition/data> [Accessed: 10 June 2018]
- [228] Oxford English Reference Dictionary. 2nd ed. OUP; 2002
- [229] Rosenberg D. Data before the fact. In: Gitelman L, editor. 'Raw data' is an Oxymoron. Cambridge, MA: The MIT Press; 2013. pp. 15-40
- [230] Uhler P, Cohen D, editors. Report from Developing Data Attribution and Citation Practices and Standards: An International Symposium and Workshop, National Academy of Sciences' Board on Research Data and Information. Washington DC: National Academies Press; 2012. Available from: <http://www.nap.edu>
- [231] Australian National Data Service, What is Research Data?. Available from: <https://www.ands.org.au/guides/what-is-research-data> [Accessed: June 10, 2018]
- [232] National Institutes of Health. NIH Grants Policy Statement. Available from: [http://grants.nih.gov/grants/policy/nihgps\\_2013/nihgps\\_ch8.htm#\\_Toc271264947](http://grants.nih.gov/grants/policy/nihgps_2013/nihgps_ch8.htm#_Toc271264947) [Accessed: June 10, 2018]
- [233] National Academy of Sciences, National Academy of Engineering and Institute of Medicine (2009). Ensuring the Integrity, Accessibility, and Stewardship of Research Data in the Digital Age
- [234] Digital Curation Centre. Example DMPs and guidance. Available from: <http://www.dcc.ac.uk/resources/data-management-plans/guidance-examples> [Accessed: June 10, 2018]
- [235] University of Glasgow. Research Data Policy. Available from: <https://www2.le.ac.uk/services/research-data/documents/GlasgowRDPolicy.docx> [Accessed: June 10, 2018]
- [236] Australian Code for the Responsible Conduct of Research, Section 2.1., University of Technology, Queensland. Available from: <https://www.nhmrc.gov.au/guidelines-publications/r39> [Accessed: March 2016]
- [237] Queensland University of Technology. Management of Research Data. Policy. 2015. Available from: [http://www.mopp.qut.edu.au/D/D\\_02\\_08.jsp](http://www.mopp.qut.edu.au/D/D_02_08.jsp) [Accessed: March 2016]
- [238] University of Melbourne. Management of Research Data and Records Policy. Available from: <http://policy.unimelb.edu.au/MPF1242> [Accessed: June 2018]
- [239] Monash University. Research Data Management Policy. Available from: [https://www.monash.edu/\\_\\_data/assets/pdf\\_file/0011/797339/Research-Data-Management-Policy.pdf](https://www.monash.edu/__data/assets/pdf_file/0011/797339/Research-Data-Management-Policy.pdf) [Accessed: June 10, 2018]
- [240] Engineering and Physical Sciences Research Council. Expectations. Available from: <https://epsrc.ukri.org/about/standards/researchdata/expectations/> [Accessed: June 10, 2018]
- [241] European Commission. Horizon 2020 Annotated Model Grant Agreements, Version 4.1. The EU Framework Programme for Research and innovation. 26 October 2017b. Available from: [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/amga/h2020-amga\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf)

- [242] White House. Increasing Access to the Results of Federally Funded Scientific Research. Memorandum to the Heads of Executive Departments and Agencies. 5
- [243] Borgman C. Scholarship in the Digital Age: Information, Infrastructure, and the Internet. Cambridge, MA: MIT Press; 2007
- [244] Stodden V. The legal framework for reproducible scientific research licencing and copyright. *Computing in Science and Engineering*. 2009;**11**(1): 35-40
- [245] Pasquetto IV et al. On the reuse of scientific data. *Data Science Journal*. 2017;**16**(8):1-9. DOI: 10.5334/dsj2017-008
- [246] Wallis JC, Rolando E, Borgman CL. If we share data, will anyone use them? Data sharing and reuse in the long tail of science and technology. *PLoS One*. 2013; **8**(7):e67332. DOI: 10.1371/journal.pone.0067332
- [247] SPARC Europe. What is open data? Available from: <https://sparceurope.org/what-we-do/open-data/what-is-open-data/> [Accessed: June 10, 2018]
- [248] Open Knowledge Foundation. What is Open? Available from: <https://okfn.org/opendata/> [Accessed: June 10, 2018]
- [249] OECD. Co-ordination and support of international research data networks. OECD Science, Technology and Industry Policy Papers, No. 51. Paris: OECD Publishing; 2017a. 10.1787/e92fa89e-en
- [250] The Royal Society. Science as an Open Enterprise. 2012. Available from: <https://royalsociety.org/~media/policy/projects/sape/2012-06-20-saoe.pdf>
- [251] Uhler PF, editor. For Attribution–Developing Data Attribution and Citation Practices and Standards: Summary of an International Workshop. Washington, D.C.: National Academies Press; 2012 Available from: [http://www.nap.edu/catalog.php?record\\_id=13564](http://www.nap.edu/catalog.php?record_id=13564)
- [252] Zimmerman AS. Not by metadata alone: The use of diverse forms of knowledge to locate data for reuse. *International Journal on Digital Libraries*. 2007;**7**(1–2):5-16. DOI: 10.1007/s00799-007-0015-8
- [253] Lorentz Center. Jointly designing a data FAIRPORT. Conference Report. 2014. Available from: <https://www.lorentzcenter.nl/lc/web/2014/602/extra.pdf> [Accessed: June 10, 2018]
- [254] National Institutes of Health. Data Science at NIH. Available from: <https://datascience.nih.gov/commons> [Accessed: June 10, 2018]
- [255] Horizon 2020 Annotated Model Grant Agreements, Version 1.6. 2 May 2014. Available from: [https://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/amga/h2020-amga\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf)
- [256] University of Cambridge. Research Data Management. Available from: <https://www.data.cam.ac.uk/>
- [257] Princeton University. RDM Home. Available from: <http://library.princeton.edu/research-data-management>
- [258] Harvard Library. Data Management. Available from: <https://guides.library.harvard.edu/dmp>
- [259] Stanford Libraries. Data Management Services. Available from: <https://library.stanford.edu/research/data-management-services>
- [260] Cornell University. Data Management Planning. Available from: <https://data.research.cornell.edu/content/data-management-planning>

- [261] Kristin B. Data Management for Researchers: Organize, Maintain and Share your data for Research Success (Research Skills) (Kindle Location 321). Pelagic Publishing. Kindle Edition. 2016
- [262] Lee DJ, Stvilia B. Practices of research data curation in institutional repositories: A qualitative view from repository staff. PLoS One. 2017;12(3): e0173987. DOI: 10.1371/journal.pone.0173987
- [263] Digital Curation Centre. DCC Curation Lifecycle Model. Available from: <http://www.dcc.ac.uk/drupal/resources/curation-lifecycle-model>
- [264] Gladney HM. Long-term preservation of digital records: Trustworthy digital objects. American Archivist. 2009;72:401-435 Available from: <http://americanarchivist.org/doi/pdf/10.17723/aarc.72.2.g513766100731832>
- [265] Bicarregui J, Gray N, Henderson R, Jones R, Lambert S, Matthews B. Data management and planning for big science projects. 2012. Available from: <http://inspirehep.net/record/1128200/plots?ln=en>
- [266] Springer Nature. What is Open Access? Available from: <https://www.springer.com/gp/authors-editors/authorandreviewertutorials/open-access/what-is-open-access/10286522>
- [267] CERN. Exploring the Mysteries of the Universe through Video Collaboration. Available from: <https://21fvm71z6eomz3v3luqi11am-wpengine.netdna-ssl.com/wp-content/uploads/Case-Studies/CSW-CERN-US.pdf> [Accessed: June 10, 2018]
- [268] CERN. Member states. Available from: <https://home.cern/about/member-states> [Accessed: June 10, 2018]
- [269] CERN (European Organization for Nuclear Research). ALICE - Accelerating Science. Available from: <https://home.cern/about/experiments/alice> [Accessed: June 10, 2018]
- [270] High Scalability. How Big Is A Petabyte, Exabyte, Zettabyte, Or A Yottabyte?. 2012. Available from: <http://highscalability.com/blog/2012/9/11/how-big-is-a-petabyte-exabyte-zettabyte-or-a-yottabyte.html> [Accessed: June 10, 2018]
- [271] CERN (European Organization for Nuclear Research). Computing. <https://home.cern/about/computing> [Accessed: 10 June 2018]
- [272] CERN (European Organization for Nuclear Research). CERN Data Centre Passes the 200-Petabyte Milestone. Available from: <https://home.cern/about/updates/2017/07/cern-data-centre-passes-200-petabyte-milestone> [Accessed: June 10, 2018]
- [273] Worldwide LHC Computing Grid (WLCG). Memorandum of Understanding for Collaboration in the Deployment and Exploitation of the Worldwide LHC Computing Grid. Available from: <http://wlcg.web.cern.ch/collaboration/mou>
- [274] Worldwide LHC Computing Grid (WLCG). About. Available from: <http://wlcg-public.web.cern.ch/about> [Accessed: June 10, 2018]
- [275] CERN. Worldwide LHC Computing Grid, Tier0 and Tier1 Centres, and the CERN Analysis Facility. Available from: [https://espace2013.cern.ch/WLCG-document-repository/MoU%20docs/Annexes/Annex-1/2017/Annex1\\_Tier1centres\\_20JUN2017.pdf](https://espace2013.cern.ch/WLCG-document-repository/MoU%20docs/Annexes/Annex-1/2017/Annex1_Tier1centres_20JUN2017.pdf) [Accessed: June 10, 2018]
- [276] CERN. Worldwide LHC Computing Grid, Tier2 Centres. Available from: <https://espace.cern.ch/>

- WLCG-document-repository/MoU%20docs/Annexes/Annex-2/2017/Tier2-Centres\_03FEB2017.pdf [Accessed: June 10, 2018]
- [277] CERN. The Worldwide LHC Computing Grid. Available from: <http://home.cern/about/computing/worldwide-lhc-computing-grid> [Accessed: June 10, 2018]
- [278] CERN (European Organization for Nuclear Research). Proposed LHCOPN Operational Model. Available from: <https://twiki.cern.ch/twiki/bin/view/LHCOPN/OperationalModel#Foundations>
- [279] Oxford A. The Technology Behind CERN: The Hunt for the Higgs Boson. Software, December 28, 2012
- [280] Litmaath M. A short introduction to the Worldwide LHC computing grid. Presentations. Available from: <https://espace.cern.ch/visits-nl-scholen/Presentations/wlcg-intro-4.pdf>
- [281] Herterich P, Dallmeier-Tiessen S. Data citation services in the high-energy physics community. Digital Library Magazine. 2016;**22**(1/2)
- [282] Aad G et al. Combined measurement of the Higgs boson mass in pp collisions at  $\sqrt{s}=7$  and 8 TeV with the ATLAS and CMS experiments. Physical Review Letters. 2015;**114**: 191803. DOI: 10.1103/PhysRevLett.114.191803
- [283] CERN (European Organization for Nuclear Research). Experiments. Available from: <https://home.cern/about/experiments> [Accessed: June 10, 2018]
- [284] CERN (European Organization for Nuclear Research). LHCb. Available from: <https://home.cern/about/experiments/lhcb> [Accessed: June 10, 2018]
- [285] Open Data CERN. Data Policies. Available from: <http://opendata.cern.ch/collection/Data-Policies> [Accessed: June 10, 2018]
- [286] DPHEP Study Group. Data preservation in high energy physics. In: arXiv Preprint. arXiv:0912.0255. 2009
- [287] CERN (European Organization for Nuclear Research). ATLAS Data Access Policy. Available from: <http://opendata.cern.ch/record/413> [Accessed: June 10, 2018]
- [288] Open Data CERN. Home page. Available from: <http://opendata.cern.ch/> [Accessed: June 10, 2018]
- [289] CERN. CMS Guide to Research Use of CMS Open Data. Available from: <http://opendata.cern.ch/docs/cms-guide-for-research> [Accessed: June 10, 2018]
- [290] Rao A. CERN CMS releases 300 terabytes of research data from LHC. CERN Media Release. 2016. Available from: <https://phys.org/news/2016-04-cms-terabytes-lhc.html>
- [291] Library of Congress. MARC 21 Format for Bibliographic Data. Available from: <https://www.loc.gov/marc/bibliographic/>
- [292] ISO 26324:2012. Information and Documentation—Digital Object Identifier System. Available from: <https://www.iso.org/standard/43506.html>
- [293] CERN (European Organization for Nuclear Research). CMS Collaboration. 2012 ‘CMS Data Preservation, Re-use and Open Access Policy’. 10.7483/OPENDATA.CMS.UDBF.JKR9. Available from: <http://opendata.cern.ch/record/411> [Accessed: June 10, 2018]
- [294] Data Citation Synthesis Group. Joint Declaration of Data Citation Principles. In: Martone M editor.

San Diego CA: FORCE11. 10.25490/a97f-egyky; 2014

[295] Cowton J et al. 'Open data and data analysis preservation services for LHC experiments'. 21st International Conference On Computing In High Energy and Nuclear Physics. IOP Publishing, Journal of Physics: Conference series. 2015;**664**(2015): 032030. DOI: 10.1088/1742-6596/664/3/032030

[296] Nobelprize.org. The Nobel Prize in Physics. 2013. Available from: [http://www.nobelprize.org/nobel\\_prizes/physics/laureates/2013/](http://www.nobelprize.org/nobel_prizes/physics/laureates/2013/)

[297] Higgs Boson Machine Learning Challenge. Available from: <https://www.kaggle.com/c/higgs-boson/> [Accessed: June 10, 2018]

[298] Gentil-Beccot A, Mele S, Brooks TC. Citing and reading behaviours in high energy physics. *Scientometrics*. 2009;**84**(2):345-355

[299] INVENIO. Open Source Framework for Large-Scale Digital Repositories. Available from: <http://invenio-software.org/>

[300] Nobelprize.org. The Nobel Prize in Physics. 2004. Available from: [http://www.nobelprize.org/nobel\\_prizes/physics/laureates/2004/advanced.html](http://www.nobelprize.org/nobel_prizes/physics/laureates/2004/advanced.html) [Accessed: June 10, 2018]

[301] Dallmeier Tiessen S, Herterich P, Igo-Kemenes P, Simko T, Smith T. CERN Analysis Preservation—Use Cases. 2015. Available from: <https://zenodo.org/record/33693>; <https://docplayer.net/14993957-Cern-analysis-preservation-cap-use-cases-sunje-dallmeier-tiessen-patricia-herterich-peter-igo-kemenes-tibor-simko-tim-smith.html> [Accessed: June 10, 2018]

[302] Chen X et al. CERN analysis preservation: A novel digital Library service to enable reusable and

reproducible research. In: Fuhr N, Kovács L, Risse T, Nejdil W, editors. *Research and Advanced Technology for Digital Libraries*. TPD, Lecture Notes in Computer Science. Vol. 9819. 2016. pp. 347-356, 348. DOI: 10.1007/978-3-319-43997-6\_27 [Accessed: June 10, 2018]

[303] Cranmer K, Heinrich L, Jones R, South DM. Analysis preservation in ATLAS. In: 21st International Conference on Computing in High Energy and Nuclear Physics. Vol. 664. IOP Publishing. Journal of Physics: Conference Series; 2015, 2015. p. 032013, 3. DOI: 10.1088/1742-6596/664/3/032013. Available from: <http://iopscience.iop.org/article/10.1088/1742-6596/664/3/032013/meta>

[304] CERN (European Organization for Nuclear Research). ALICE Data Preservation Strategy. Available from: <http://opendata.cern.ch/record/412> [Accessed: June 10, 2018]

[305] Catmore J et al. New petabyte-scale data derivation framework for ATLAS. IOP Publishing, Journal of Physics: Conference Series. 2015;**664**(072007). DOI: 10.1088/1742-6596/664/7/072007

[306] Jones RWL et al. ATLAS data preservation. *Publishing Journal of Physics: Conference Series*. 2015;**664**(032017):4

[307] Larkoski A, Marzani S, Thaler J, Tripathy A, Xue W. Exposing the QCD splitting function with CMS open data. *Physical Review Letters*. 2017;**119**(13). DOI: 10.1103/PhysRevLett.119.132003

[308] International Masterclasses in the LHC Era. *CERN Courier*. June 2014;**54**(5):37–39. Available from: <https://home.cern/students-educators/updates/2014/07/international-masterclasses-lhc-era>

[309] Jones R. Big data at the large hadron collider: ATLAS data preservation and access policy. *Power*

- point presentation dated 15 July 2014. 2014. (unpublished)
- [310] CERN (European Organization for Nuclear Research). LHCb External Data Access Policy. Available from:<http://opendata.cern.ch/record/410> [Accessed: June 10, 2018]
- [311] Dimasi JA, Grabowski HG. The cost of biopharmaceutical R&D: Is biotech different? *Managerial and Decision Economics*. 2007;**28**:469-479
- [312] Frydman JG. Patient-driven research: Rich opportunities and real risks. *Journal of Participatory Medicine*. 2009;**1**. Available from: <https://www.medscape.com/viewarticle/713872>
- [313] Fogel J, Ribisl KM, Morgan PD, et al. Underrepresentation of African Americans in online cancer support groups. *Journal of National Medicine Association*. 2008;**100**:705-712
- [314] Grant RW, Cagliero E, Chueh HC, Meigs JB. Internet use among primary care patients with type 2 diabetes: The generation and education gap. *Journal of General Internal Medicine*. 2005;**20**: 470-473
- [315] Han JY, Kim JH, Shim M, McTavish FM, Gustafson DH. Social and psychological determinants of levels of engagement with an online breast cancer support group: Posters, lurkers, and non-users. *Journal of Health Communication*. 2012;**17**:365-371
- [316] Im EO, Chee W, Liu Y, et al. Characteristics of cancer patients in internet cancer support groups. *Computers, Informatics, Nursing*. 2007; **25**(6):334-343 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2504028/>
- [317] Owen JE et al. Use of health-related online support groups: Population data from the California health interview survey complementary and alternative medicine study. *Journal of Computer-Mediated Communication*. 2010;**15**:427-446
- [318] Klemm P et al. Online cancer support groups: A review of the research literature. *Computers, Informatics, Nursing*. 2003;**21**(3):136-141
- [319] Vilhauer RP. Perceived benefits of online support groups for women with metastatic breast cancer. *Women and Health*. 2009;**49**(5):381-404. DOI: 10.1080/03630240903238719
- [320] Kratz JE, Strasser C. Researcher perspectives on publication and peer review of data. *PLoS One*. 2015;**10**: e011761
- [321] Hrynaskiewicz I, Norton ML, Vickers AJ, Altman DG. Preparing raw clinical data for publication: Guidance for journal editors, authors, and peer reviewers. *British Medical Journal*. 2010;**340**:181-182
- [322] Van de Wetering FT, Scholten R, Haring T, Clarke M, Hooft L. Trial registration numbers are underreported in biomedical publications. *PLoS One*. 2012;**7**:e49599
- [323] Jones CW et al. Non-publication of large randomized clinical trials: Cross sectional analysis. *British Medical Journal*. 2013;**347**:6104-6104
- [324] McGauran N et al. Reporting bias in medical research—A narrative review. *Trials*. 2010;**11**:37
- [325] Doshi P, Goodman SN, Ioannidis JPA. Raw data from clinical trials: Within reach? *Trends in Pharmacological Sciences*. 2013;**34**(12): 645-647
- [326] Zarin DA. Participant-level data and the new frontier in trial transparency. *New England Journal of Medicine*. 2013;**369**(5):468-469
- [327] Savage CJ, Vickers AJ. Empirical study of Data sharing by authors

- publishing in PLoS journals. PLoS ONE. 2009;4(9):e7078, 1. DOI: 10.1371/journal.pone.0007078
- [328] Wicherts JM, Borsboom D, Kats J, Molenaar D. The poor availability of psychological research data for reanalysis. *American Psychology*. 2006; **61**:726-728
- [329] Vines TH et al. Mandated data archiving greatly improves access to research data. *The FASEB Journal*. 2013; **27**(4):1304-1308
- [330] Piwowar HA. Who shares? Who doesn't? Factors associated with openly archiving raw research. *PLoS One*. 2011; **6**:e18657
- [331] Lipkin M. Shared decision making. *JAMA Internal Medicine*. 2013; **173**:1204-1205
- [332] Lloyd K, White J. Democratizing clinical research. *Nature*. 2011; **474**:277-278
- [333] Tinetti ME, Basch E. Patients' responsibility to participate in decision making and research. *JAMA*. 2013; **309**:2331-2332
- [334] Domecq JP, Prutsky G, Elraiyah T, et al. Patient engagement in research: A systematic review. *BMC Health Services Research*. 2014; **14**:89
- [335] Thornton S. Beyond rhetoric: We need a strategy for patient involvement in the health service. *British Medical Journal*. 2014; **348**:g4072
- [336] Sacristán JA, Aguarón A, Avendaño-Solá C, Garrido P, Carrión J, Gutiérrez A, et al. Patient involvement in clinical research: Why, when, and how. *Patient Preference and Adherence*. 2016; **10**:631-640. DOI: 10.2147/PPA.S104259
- [337] Gupta UC. Informed consent in clinical research: Revisiting few concepts and areas. *Perspectives in Clinical Research*. 2013; **4**(1):26-32. DOI: 10.4103/2229-3485.106373
- [338] Food and Drug Administration, Informed Consent for Clinical Trials, United States. Available from: <https://www.fda.gov/ForPatients/ClinicalTrials/InformedConsent/default.htm>
- [339] Institute of Medicine. *Sharing Clinical Trial Data: Maximizing Benefits, Minimizing Risk*. Washington, DC: The National Academies Press; 2015. 10.17226/18998
- [340] Humphries C. New disease registry gives patients some privacy. *MIT Technology Review*. 14 March 2013. Available from: <https://www.technologyreview.com/s/512456/new-disease-registry-gives-patients-some-privacy/>
- [341] Suver C. Innovation in informed consent Sage bionetworks toolkit. Presentation given at UBC REB Retreat, 21 October 2015. Available from: [https://ethics.research.ubc.ca/sites/ore.ubc.ca/files/documents/Innovation\\_in\\_IC\\_Sage\\_Bionetworks\\_Toolkit\\_CSuver.pdf](https://ethics.research.ubc.ca/sites/ore.ubc.ca/files/documents/Innovation_in_IC_Sage_Bionetworks_Toolkit_CSuver.pdf)
- [342] Bierer BE. Guiding principles for clinical trial data sharing. Paper Presented at IOM Committee on Strategies for Responsible Sharing of Clinical Trial Data: Meeting Two, 3-4 February, Washington, DC; 2014
- [343] Koenig F, Slattery J, Groves T, Lang T, Benjamini Y, Day S, et al. Sharing clinical trial data on patient level: Opportunities and challenges. *Biometrical Journal*. 2015; **57**(1):8-26. DOI: 10.1002/bimj.201300283
- [344] Decision of the European Ombudsman Closing His Inquiry Into Complaint, 2560/2007/BEH against the European Medicines Agency. Available from: <https://www.ombudsman.europa>

eu/cases/decision.faces/en/5459/html.  
bookmark#\_ftn1

[345] European Commission. Regulation of the European Commission No 1049/2001. [Accessed: May 30, 2001]

[346] European Medicines Agency. European Medicines Agency Policy on Access to Documents (Related to Medicinal Products for Human and Veterinary Use), POLICY/0043. 30 November 2010b. Available from: [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Other/2010/11/WC500099473.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Other/2010/11/WC500099473.pdf)

[347] Wathion N and European Medicines Agency. Finalisation of EMA policy on publication of and access to clinical trial data. Summary report. 2014. Available from: [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Report/2014/09/WC500174226.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Report/2014/09/WC500174226.pdf)

[348] European Medicines Agency. Publication and access to clinical-trial data. Draft Policy. 2013 Available from: [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Other/2013/06/WC500144730.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Other/2013/06/WC500144730.pdf)

[349] European Medicines Agency policy on Publication of Clinical Data for Medicinal Products for Human Use. The Policy Is In Accordance Article 80 of Regulation (EC) No 726/20041. 2014. Available from: [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Other/2014/10/WC500174796.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Other/2014/10/WC500174796.pdf)

[350] FDA, CFR—Code of Federal Regulations Title 21, Par. C. Available from: <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?fr=20.61>

[351] Drug Price Competition and Patent Term Restoration Act, Public Law. 24 September 1984. pp. 98-417, 98th Cong

[352] Brennan Z. FDA Withdraws Proposed Rule on Public Disclosure of Info on Unapproved Gene Therapies'. Regulatory Focus™. 10 November 2016. Available from: <https://www.raps.org/regulatory-focus/news-articles/2016/11/fda-withdraws-proposed-rule-on-public-disclosure-of-info-on-unapproved-gene-therapies>

[353] Woodcock J. FDA's New Pilot Program Aims for More Transparency about New Drug Approvals. FDA Voice. Blog, Posted on 19 March 2018. Available from: <https://blogs.fda.gov/fdavoices/index.php/2018/03/fdas-new-pilot-program-aims-for-more-transparency-about-new-drug-approvals/>

[354] Lanthier M, Miller KL, Nardinelli C, Woodcock J. An improved approach to measuring drug innovation finds steady rates of first-in-class pharmaceuticals, 1987–2011. Health Affairs. 2013;32(8):1433-1439

[355] Doshi P, Dickersin K, Healy D, Vedula SS, Jefferson T. Restoring invisible and abandoned trials: A call for people to publish the findings. British Medical Journal. 2013;346:f2865

[356] Krumholz HM, Gross CP, Blount KL, Ritchie JD, Hodshon B, Lehman R, et al. Sea change in open science and data sharing: Leadership by industry. Circulation: Cardiovascular Quality and Outcomes. 2014;7(4):499-504

[357] European Federation of Pharmaceutical Industries and Associations (EFPIA). EFPIA and PhRMA release joint principles for responsible clinical trial data sharing to benefit patients. 2013. Available from: <https://www.efpia.eu/news-events/the-efpia-view/statements-press-releases/130724-efpia-and-pharma-release-joint-principles-for-responsible-clinical-trial-data-sharing-to-benefit-patients/>

[358] Food and drug Administration. Small business report to Congress

mandated by the Food and Drug Administration Safety and Innovation Act. 31 May 2013. Available from: <https://www.fda.gov/downloads/RegulatoryInformation/LawsEnforcedbyFDA/SignificantAmendmentstotheFDCAAct/FDASIA/UCM360058.pdf>

[359] Greenwald T. Patients Take Control of their Health Care Online. MIT Technology Review. 2013. Available from: <https://www.technologyreview.com/s/518886/patients-take-control-of-their-health-care-online/>

[360] World Health Organization, Joint Statement on Public Disclosure of Results From Clinical Trials Signed on 18 May 2017. Available from: <http://www.who.int/ictrp/results/jointstatement/en/>

[361] National Research Council. Private Lives and Public Policies: Confidentiality and Accessibility of Government Statistics. Washington, DC: National Academy Press; 1993

[362] National Institutes of Health. Summary Table of HHS/NIH Initiatives to Enhance Availability of Clinical Trial Information. 15 September 2016. Available from: <https://www.nih.gov/news-events/summary-table-hhs-nih-initiatives-enhance-availability-clinical-trial-information>

[363] Hudson KL, Collins FS. Sharing and reporting the results of clinical trials. *Journal of the American Medical Association*. 2014. DOI: 10.1001/jama.2014.10716

[364] European Medicines Agency. (N.D.). Clinical data available. Policy document. Available from: <https://clinicaldata.ema.europa.eu/web/cdp/background> [Accessed: June 10, 2018]

[365] European Medicines Agency, Online access to clinical data for medical

products for human use. Available from: <https://clinicaldata.ema.europa.eu> [Accessed: June 10, 2018]

[366] Sydes MR et al. Sharing data from clinical trials: The rationale for a controlled access. *Clinical Trials*. 2015; **16**:104. Available from: <https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-015-0604-6>

[367] Wiley Open Science Researcher Survey. 2016. Available from: [https://figshare.com/articles/Wiley\\_Open\\_Science\\_Researcher\\_Survey\\_2016/4748332](https://figshare.com/articles/Wiley_Open_Science_Researcher_Survey_2016/4748332)

[368] Wiley Network, Open Science Trends you Need to Know About. Available from: <https://hub.wiley.com/community/exchanges/discover/blog/2017/04/19/open-science-trends-you-need-to-know-about?referrer=exchanges> [Accessed: June 10, 2018]

[369] Elsevier and the Centre for Science and Technology Studies (2017). Open Data: The Researcher Perspective. Available from: [https://www.elsevier.com/\\_data/assets/pdf\\_file/0004/281920/Open-data-report.pdf](https://www.elsevier.com/_data/assets/pdf_file/0004/281920/Open-data-report.pdf)

[370] Van den Eynden V, Knight G, Vlad A, et al. Survey of Wellcome researchers and their attitudes to open research. *figshare*. 31 October 2016. Available from: <https://doi.org/10.6084/m9.figshare.4055448.v1>

[371] Bornmann L. Do altmetrics point to the broader impact of research? An overview of benefits and disadvantages of altmetrics. *Journal of Informetrics*. 2014;**8**(4):895-903. DOI: 10.1016/j.joi.2014.09.005

[372] Konkiel S. Altmetrics. A 21st-century solution to determining research quality. *Information Today*. 2013;**37**(4) Available from: <http://www.infotoday.com/OnlineSearcher/Articles/Features/Altmetrics-A-stCentury->

Solution-to-Determining-Research-Quality-90551.shtml

[373] Peters I, Kraker P, Lex E, et al. Research data explored: An extended analysis of citations and altmetrics. *Scientometrics*. 2016;**107**:723. DOI: 10.1007/s11192-016-1887-4

[374] Piwowar HA, Chapman WW. Public sharing of research datasets: A pilot study of associations. *Journal of Informetrics*. 2010;**4**:148-156

[375] Reuters T. Repository Evaluation, Selection, and Coverage Policies for the Data Citation Index within Thomson Reuters Web of Knowledge. 2012. Available from: [http://wokinfo.com/products\\_tools/multidisciplinary/dci/selection\\_essay](http://wokinfo.com/products_tools/multidisciplinary/dci/selection_essay)

[376] Costas R, Meijer I, Zahedi Z, Wouters P. The value of research data—Metrics for data sets from a cultural and technical point of view, a knowledge exchange report. 2012. Available from: <http://www.knowledge-exchange.info/datametrics>

[377] National Academy of Sciences. Sharing of Research Results. Washington: National Academies Press; 2009. Available from: [www.ncbi.nlm.nih.gov/books/NBK214573/](http://www.ncbi.nlm.nih.gov/books/NBK214573/)

[378] Jasny BR, Chin G, Chong L, Vignieri S. Again, and again, and again... *Science*. 2011;**334**(6060):1225. DOI: 10.1126/science.334.6060.1225

[379] Stodden VC. Reproducible research: Addressing the need for data and code sharing in computational science. *Computing in Science and Engineering*. 2010;**12**(5):8-12. DOI: 10.1109/MCSE.2010.113

[380] Ioannidis J, Khoury M. Improving validation practices in 'Omics' Research. *Science*. 2011;**334**(6060):1230-1232. DOI: 10.1126/science.1211811

[381] Open Data Institute, Publisher's Guide to Open Data Licensing. Available from: <https://theodi.org/article/publishers-guide-to-open-data-licensing/> [Accessed: June 10, 2018]

[382] World Trade Organization (WTO). Trade-Related Aspects of Intellectual Property Rights'. Available from: [https://www.wto.org/english/tratop\\_e/trips\\_e/trips\\_e.htm](https://www.wto.org/english/tratop_e/trips_e/trips_e.htm)

[383] World Intellectual Property Organization (WIPO). WIPO Copyright Treaty (WCT). Available from: <http://www.wipo.int/treaties/en/ip/wct/>

[384] Ricketson S, Richardson M, Davison MJ. *Intellectual Property: Cases, Materials and Commentary*. Chatswood, NSW: Lexis Nexis Butterworth; 2013, Part 4

[385] *IceTV Pty Ltd v Nine Network Australia Pty Ltd* (2009a) 239 CLR 458

[386] *Telstra Corporation Limited v Phone Directories Company Pty Ltd* (2010) FCA 44

[387] *Desktop Marketing Systems Pty Ltd v Telstra Corporation Ltd* (2002) 119 FCR 491 at 407

[388] Fitzgerald, Anne M, Dwyer N. Copyright in databases in Australia. 2017. Available from: <https://eprints.qut.edu.au/50425/>

[389] *IceTV Pty Ltd v Nine Network Australia Pty Ltd* (2009b) HCA 14

[390] *Telstra Corporation Ltd v Phone Directories Company Pty Ltd* (2010a) 264 ALR 617

[391] *Telstra Corporation Ltd v Phone Directories Company Pty Ltd* (2010b) FCAFC 149

[392] Productivity Commission Inquiry Report. (2017). Data Availability and Use Report No. 82, Canberra. Australia,

March. Available from: <https://www.pc.gov.au/inquiries/completed/data-access/report/data-access.pdf>

[393] Copyright Act of 1976, 17 U.S.C. (1976)

[394] Feist Publications, Inc. v. Rural Telephone Service Co. 499 U.S. 340; 1991

[395] Directive 2009/24/EC. Available from: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0024>

[396] Directive 2006/115/EC. Available from: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:376:0028:0035:EN:PDF>

[397] Directive 93/83/EEC. Available from: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:31993L0083>

[398] Directive 93/98/EEC. Available from: <https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:31993L0098>

[399] Directive 96/9/EC. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31996L0009>

[400] Directive 2001/29/EC. Available from: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:167:0010:0019:EN:PDF>

[401] Directive 2001/84/EC. Available from: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0084:EN:HTML>

[402] Directive 2012/28/EU. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0028>

[403] Directive 2014/26/EU. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0026>

[content/EN/TXT/?uri=celex%3A32014L0026](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0026)

[404] Dietrich N, Guibault L, Margoni T, Siewicz K, Wiebe A. Possible forms of legal protection: An EU perspective. In: Guibault L, Wiebe A, editors. Safe to be Open: A Study on the Protection of Research Data and Recommendations for Access and Usage. Universitätsverlag Göttingen; 2013. p. 23

[405] ECJ Case C-604/10. Football Dataco Ltd et al v Yahoo! UK Ltd GRUR at 386; 2012

[406] ECJ Case C-203/02. British Horseracing Board Ltd v William Hill Organization Ltd (BHB). ECR I-10415; 2004

[407] Davison M. Database protection: Lessons Europe, Congress, and WIPO. Case Western Reserve Law Review. 2016;57(4)

[408] CJEU, case C-2-2/12, Innoweb BV v Wegener ICT Media BV and Wegener Mediaventions BV. ECLI 850; 2013

[409] Judgement of the Court (Fifth Chamber). 19 December 2013. Available from: <http://curia.europa.eu/juris/celex.jsf?celex=62012CJ0202&lang1=en&type=TXT&ancre=>

[410] Right Environment for Digital Networks and Services. 6 May 2015. Available from: <https://ec.europa.eu/digital-single-market/en/right-environment-digital-networks-and-services> [Accessed: June 10, 2018]

[411] European Commission. Public consultation on the database directive: Application and impact. 24 May–30 August 2017. Available from: [https://ec.europa.eu/info/consultations/public-consultation-database-directive-application-and-impact-0\\_en](https://ec.europa.eu/info/consultations/public-consultation-database-directive-application-and-impact-0_en)

[412] Gideon Emcee Christian. Building a Sustainable Framework for Open

Access to Research Data through Information and Communication Technologies, International Development Research Centre Canada. 2009

[413] Productivity Commission. Intellectual Property Arrangements: Draft Report. Canberra: Australian Government; 2016

[414] University of Western Australia (UWA) v Gray (No 20) (2008) FCA 49. FCAFC 116; 2009

[415] Van Caenegem W. VUT v Wilson, UWA v Gray and university intellectual property policies. Australian Intellectual Property Journal. 2010;21(3):148-163

[416] University of Western Australia v Gray. 179 FCR 346; 2009

[417] Fishbein EA. Ownership of research data. Academic Medicine. 1991; 66(3):129

[418] Columbia University. 'Responsible Conduct of Research'. Available from: [http://ccnmtl.columbia.edu/projects/rcr/rcr\\_data/foundation/index.html](http://ccnmtl.columbia.edu/projects/rcr/rcr_data/foundation/index.html)

[419] Evans BJ. Much ado about data ownership. Harvard Journal of Law and Technology. 2011;25. Available from: <http://jolt.law.harvard.edu/articles/pdf/v25/25HarvJLTech69.pdf>

[420] Moore v Regents of the University of California and Ors 793 P 2d 479 . Supreme Court of California;1990

[421] Newborn Screening Saves Lives Reauthorization, Act of 2014. 113th Congress (2013–14). Available from: <https://www.congress.gov/bill/113th-congress/house-bill/1281>

[422] US Department of Health and Human Services (18 January 2017). Final Rule Enhances Protections for Research Participants, Modernizes Oversight System. Available from: <http://wayback.archive-it.org/3926/>

20170127095200/<https://www.hhs.gov/about/news/2017/01/18/final-rule-enhances-protections-research-participants-modernizes-oversight-system.html>

[423] European Commission. Digitising European Industry Reaping the Full Benefits of a Digital Single Market. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions, COM/2016/0180 Final; 19 April 2016a

[424] Van Asbroeck B, Debussche J, César J. Building the European Data Economy, Data Ownership. White paper. Bird & Bird. 2017

[425] CJEU, case C-128/11, UsedSoft GmbH v Oracle International Corp. ECLI: 407

[426] Hoeren T. Big Data and the Ownership in Data: Recent Developments in Europe. EIPR. 2014;36(12):751

[427] Creative Commons. CC0 1.0 Universal (CC0 1.0) Public Domain Dedication. Available from: <https://creativecommons.org/publicdomain/zero/1.0/legalcode>

[428] Creative Commons. Public Domain Mark. Available from: <https://creativecommons.org/share-your-work/public-domain/pdm>

[429] Geiger, C., Frosio, G., Bulayenko, O. (2 February 2018). The Exception for Text and Data Mining (TDM) in the Proposed Directive on Copyright in the Digital Single Market-Legal Aspects. Briefing paper. European Parliament's Policy Department for Citizens' Rights and Constitutional Affairs. Available from: [http://www.europarl.europa.eu/RegData/etudes/IDAN/2018/604941/IPOL\\_IDAF243\(2018\)604941\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/IDAN/2018/604941/IPOL_IDAF243(2018)604941_EN.pdf)

[430] Oxford Academic Journals. Third party data mining. Policy page.

Available from: [https://academic.oup.com/journals/pages/help/third\\_party\\_data\\_mining](https://academic.oup.com/journals/pages/help/third_party_data_mining)

[431] Leval PN. Toward a fair use standard. *Harvard Law Review*. 1990; **103**:1006

[432] *Authors Guild v Google, Inc*, No. 13–4829 (2d Cir. 2015), Affirming *Authors Guild v Google, Inc*, 954 F. Supp.2d 282; 2013

[433] *Authors Guild v. Google*, 770 F. Supp.2d 666 (S.D.N.Y. 2011)

[434] Australian Law Reform Commission. (2013). Copyright in the Digital Economy. Discussion paper, June. Available from: <https://www.alrc.gov.au/publications/copyright-and-digital-economy-dp-79>

[435] Hargreaves I. Digital Opportunity: A Review of Intellectual Property and Growth. Independent report. United Kingdom: Department for Business, Innovation & Skills; 2011

[436] Copyright, Design and Patents Act 1988 UK; 1988

[437] Senfleben M. EU Copyright Reform and Start-Ups—Shedding Light on Potential Threats in the Political Black Box. N.D. Available from: <https://drive.google.com/file/d/0B7NZMIL3kj5qQzNORXd2Z0JaR1JmemxhNDd2VmgezSjhFQXdj/view> and <http://www.innovatorsact.eu/wp-content/uploads/2017/03/Issues-Paper-Copyright-Directive-2.pdf>. [Accessed: June 10, 2018]

[438] Caldicott F. Information: To Share or Not to Share? The Information Governance Review. London United Kingdom: Department of Health; March 2013. Available from: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/192572/2900774\\_InfoGovernance\\_accv2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/192572/2900774_InfoGovernance_accv2.pdf). [Accessed: May 2, 2017]

[439] Creighton B, Stewart A. *Labour Law: An Introduction*. 2nd ed. Sydney: Federation Press; 1994

[440] US Office for Civil Rights (OCR). *Guidance Regarding Methods for De-identification of Protected Health Information in Accordance with the Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule*; 2012

[441] EMA. *Data Sharing Policy*; 2014

[442] US Department of Health and Human Services. *Code of Federal Regulations. Title 45. Public Welfare. Part 46 Protection of Human Subjects*. 2009. Available from: <http://www.hhs.gov/ohrp/humansubjects/guidance/45cfr46.html>

[443] Eze B, Peyton L. Systematic literature review on the anonymization of high dimensional streaming datasets for health data sharing. *Procedia Computer Science*. 2015;**63**:348-355

[444] Case T-235/15. *Pari Pharma v EMA*. Available from: [http://curia.europa.eu/juris/document/document\\_print.jsf?doclang=EN&text=&pageIndex=0&part=1&mode=lst&docid=199041&occ=first&dir=&cid=249920](http://curia.europa.eu/juris/document/document_print.jsf?doclang=EN&text=&pageIndex=0&part=1&mode=lst&docid=199041&occ=first&dir=&cid=249920)

[445] Case T-718/15. *PTC Therapeutics International v EMA*. Available from: [http://curia.europa.eu/juris/document/document\\_print.jsf?doclang=EN&text=&pageIndex=0&part=1&mode=lst&docid=199044&occ=first&dir=&cid=249920](http://curia.europa.eu/juris/document/document_print.jsf?doclang=EN&text=&pageIndex=0&part=1&mode=lst&docid=199044&occ=first&dir=&cid=249920)

[446] Case T-729/15. *MSD Animal Health Innovation and Intervet International*. Available from: [http://curia.europa.eu/juris/document/document\\_print.jsf?doclang=EN&text=&pageIndex=0&part=1&mode=lst&docid=199042&occ=first&dir=&cid=253401](http://curia.europa.eu/juris/document/document_print.jsf?doclang=EN&text=&pageIndex=0&part=1&mode=lst&docid=199042&occ=first&dir=&cid=253401)

[447] European Parliament. *Regulation (EC) No 1049/2001 Regarding Public*

- Access to European Parliament, Council and Commission Documents. 30 May 2001c. Available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001R1049&qid=1517939157555&from=EN>
- [448] EMA Update on Clinical Data Publication. 29 January 2018. Available from: [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/Presentation/2018/02/WC500243177.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/Presentation/2018/02/WC500243177.pdf)
- [449] Commonwealth of Australia, Department of the Prime Minister and Cabinet. The Australian Government's Response to the Productivity Commission Data Availability and Use Inquiry. Report. May 2018. Available from: <http://dataavailability.pmc.gov.au/sites/default/files/govt-response-pc-dau-inquiry.pdf>
- [450] The Privacy Act 1988 (Cth)
- [451] The Antarctic Treaty. 1959. Available from: [http://www.antarctica.ac.uk/about\\_antarctica/geopolitical/treaty/update\\_1959.php](http://www.antarctica.ac.uk/about_antarctica/geopolitical/treaty/update_1959.php)
- [452] International Council for Science. 2016. Open Data in a Big Data World. An International Accord, Abbreviated Version, 1. Available from: [http://www.science-international.org/sites/default/files/reports/open-data-in-big-data-world\\_short\\_en.pdf](http://www.science-international.org/sites/default/files/reports/open-data-in-big-data-world_short_en.pdf)
- [453] Allen BD. Principles on Full and Open Access to 'Global Change' Data, Policy Statements on Data Management for Global Change Research. Office of Science and Technology Policy. 1991
- [454] ICSU-CODATA Ad Hoc Group on Data and Information. Access to databases: A set of principles for science in the internet era. 2000. Available from: <http://www.icsu.org/publications/icsu-position-statements/access-to-databases/>
- [455] Arzberger P, Schroeder P, Beaulieu A, Bowker G, Casey K, Laaksonen, et al. An international framework to promote access to data. *Science*. March 2004; 1777-1778
- [456] Anonymous. Free for All. 2003 in context. *Nature*. 2003;426(755):748-757
- [457] Zandonella C. Economics of open access. *The Scientist*. 22 August 2003. Available from: <https://www.the-scientist.com/?articles.view/articleNo/22408/title/Economics-of-open-access/>
- [458] Brown PO, Michael BE, Varmus HE. Why PloS became a publisher. *PloS Biology*. 2003;1(1):1-2.r
- [459] Sidler M. Open science and the three cultures: Expanding open science to all domains of knowledge creation. In: Batling S, Friesike S, editors. *Opening Science: The Evolving Guide on How the Internet Is Changing Research. Collaboration and Scholarly Publishing*. Springer Open; 2014. p. 81
- [460] Granger CB, Ohman EM. Enhancing the value of clinical trials: The role of data sharing. *Nature Reviews Cardiology*. 2016;13:629-630
- [461] Kiley R, Peatfield T, Hansen J, Reddington F. Data sharing from clinical trials—A Research Funder's perspective. *New England Journal of Medicine*. 2017;377:1990-1992
- [462] Horton R. Offline: Data sharing—Why editors may have got it wrong. *The Lancet*. 2016;388:1143
- [463] International Consortium of Investigators for Fairness in Trial Data Sharing. Towards fairness in data sharing. *New England Journal of Medicine*. 2016;375:405-407
- [464] Longo LD, Drazen JM. Data sharing. *New England Journal of Medicine*. 2016;374:276-277

- [465] UK Research and Innovation. Common Principles on Data Policy, originally published in April 2011 and revised July 2015. Available from: <https://www.ukri.org/funding/information-for-award-holders/data-policy/common-principles-on-data-policy/>
- [466] Australian Research Council, Open Access Policy took effect from 1 January 2013. Version 2013.1. Available from: <http://www.arc.gov.au/arc-open-access-policy> [Accessed: June 10, 2018]
- [467] The National Health and Medical Research Council (NHMRC). Open Access Policy (previously also referred to as the NHMRC Policy on the Dissemination of Research) took effect from 15 January 2018, 7. Available from: [https://www.nhmrc.gov.au/\\_files\\_nhmrc/file/research/nhmrc\\_open\\_access\\_policy\\_15\\_january\\_2018\\_v2.pdf](https://www.nhmrc.gov.au/_files_nhmrc/file/research/nhmrc_open_access_policy_15_january_2018_v2.pdf)
- [468] RDM at the University of Melbourne. Available from: <http://research.unimelb.edu.au/infrastructure/doing-data-better/how>
- [469] University of Sydney. Available from: <https://library.sydney.edu.au/research/data-management/>
- [470] Monash University. Available from: <https://www.monash.edu/library/researchdata/about>
- [471] University of New South Wales. Available from: <https://research.unsw.edu.au/research-data-management-unsw>
- [472] University of Queensland Available from: <https://research.uq.edu.au/project/research-data-manager-uqrdm>
- [473] Australian National University. Available from: <https://anulib.anu.edu.au/research-learn/research-data-management>
- [474] University of Adelaide. Available from: <http://libguides.adelaide.edu.au/researchdata>
- [475] University of Western Australia. Available from: <http://www.library.uwa.edu.au/research/research-data-management-toolkit>
- [476] Harnad S. Gold open access publishing must not be allowed to retard the progress of green open access self-archiving. *Logos*. 2010a;21(3-4):89
- [477] Antelman K. Do open access articles have a greater research impact? *College and Research Libraries*. 2004; 65:372-382
- [478] Eysenbach G. The impact of preprint servers and electronic publishing on biomedical research. *Current Opinion in Immunology*. 2000; 12:499-503
- [479] Eysenbach G. Citation advantage of open access articles. *PLoS Biology*. 2006;4(5):157
- [480] Gargouri Y, Hajjem C, Larivière V, Gingras V, Carr L, Brody T, et al. Self-selected or mandated, open access increases citation impact for higher quality research. *PLoS One*;5(10): e13636
- [481] Harnad S, Brody T. Comparing the impact of open access (OA) vs. non-OA articles in the same journals. In: *Digital Library Magazine*. 2004. p. 10
- [482] Harnad S, Carr L, Swan A, Sale A, Bosc A. Maximizing and measuring research impact through university and research-funder open-access self-archiving mandates. *Wissenschaftsmanagement*. 2009;15(4): 36-41
- [483] Swan A, Brown S. Open Access Self-Archiving: An Author Study. JISC Technical Report. Key Perspectives, Inc; 2005. Available from: <http://eprints.ecs.soton.ac.uk/10999/>
- [484] Kirsch A. Technology is taking over English departments: The false

- promise of the digital humanities. *New Republic*. May 2, 2014. Available from: <https://newrepublic.com/article/117428/limits-digital-humanities-adam-kirsch>
- [485] Wessels B, Finn RL, Linde P, Mazzetti P, Nativi S, Riley S, et al. Issues in the development of open access to research data. *Prometheus*. 2014;**32**(1): 49-66
- [486] Botstein D. It's the data! *Molecular Biology of the Cell*. 2010;**21**(1):4-6
- [487] Dorch B. On the citation advantage of linking to data. *Astrophysics*. 2012. Available from: [http://hprints.org/docs/00/71/47/34/PDF/Dorch\\_2012a.pdf](http://hprints.org/docs/00/71/47/34/PDF/Dorch_2012a.pdf)
- [488] Henneken EA, Accomazzi A. Linking to data—Effect on citation rates in astronomy. In: *Digital Libraries; Instrumentation and Methods for Astrophysics*. 2011
- [489] Harnard S. Open Access/Open Data: Similarities and Differences, BRDI Symposium on Data Sharing, NAS, Washington DC, 1 December 2010b.
- [490] UNESCO. *Toward knowledge societies*. UNESCO World Report. Conde-Sur-Noireau, France: Imprimerie Corlet; 2005
- [491] McKeough J, Stewart A. *Intellectual Property in Australia*. 2nd ed 1997
- [492] Monotti A. *University Employees and Intellectual Property*. 2015. DOI: 10.2139/ssrn.3000693 Available from: <https://ssrn.com/abstract=3000693>
- [493] ALRC Report 122. *Copyright and the Digital Economy*, at 11.57. Available from: <https://www.alrc.gov.au/publications/11-incident-al-or-technical-use-and-data-and-text-mining/data-and-text-mining>
- [494] Rosati E. The exception for text and data mining in the proposed directive on copyright in the digital single market. *Technical Aspects*. 2018. Available from: [http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL\\_BRI%282018%29604942](http://www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_BRI%282018%29604942)
- [495] Thomas M. Text and Data Mining Exception, EPP Group Hearing on Copyright, 8 June 2017. Available from: [http://www.eppgroup.eu/sites/default/files/event-files/Ronja%20Füllenbach/201724/Thomas%20Margoni%20-%20EP\\_TDM.pdf](http://www.eppgroup.eu/sites/default/files/event-files/Ronja%20Füllenbach/201724/Thomas%20Margoni%20-%20EP_TDM.pdf)
- [496] Copyright Act 1968 (Cth)
- [497] CSIRO. Australian Law Reform Commission, *Copyright and the Digital Economy—Final Report*, ALRC Report 122, Sydney, 2013, 11.68. Available from: [https://www.alrc.gov.au/sites/default/files/pdfs/publications/final\\_report\\_alrc\\_122\\_2nd\\_december\\_2013\\_.pdf](https://www.alrc.gov.au/sites/default/files/pdfs/publications/final_report_alrc_122_2nd_december_2013_.pdf)
- [498] Castells M. *The Information Age: Economy, Society and Culture Volume 1: The Rise of the Network Society*. 2nd ed. Singapore: Wiley Blackwell; 2010
- [499] Guibault L, Wiebe A, editors. *Safe to be Open: A Study on the Protection of Research data and Recommendations for Access and Usage*. Göttingen: Universitätsverlag Göttingen; 2013
- [500] CJEU. case C-5/08, *Infopaq International A/S v Danske Dagblades Forening*
- [501] CJEU. Case T-235/15, *Pari Pharma v EMA*
- [502] CJEU. Case T-718/15, *PTC Therapeutics International v EMA*
- [503] CJEU. Case T-729/15, *MSD Animal Health Innovation and Intervet International*
- [504] ECJ Case C-5/08. *Infopaq International A/S v Danske Dagblades Forening*. ECDR 16; 2009

- [505] European Parliament. Directive 2001/29/EC on the Harmonization of Certain Aspects of Copyright and Related Rights in the Information Society; 22 May 2001a
- [506] European Parliament. Directive 2001/84/EC on the Resale Right for the Benefit of the Author of an Original Work of Art; 27 September 2001b
- [507] European Parliament. Directive 2006/115/EC on Rental Right and Lending Right and on Certain Rights Related to Copyright in the Field of Intellectual Property; 12 December 2006
- [508] European Parliament. Directive 2009/24/EC on the Legal Protection of Computer Programs; 23 April 2009
- [509] European Parliament. Directive 2012/28/EU on Certain Permitted Uses of Orphan Works Text with EEA Relevance; 25 October 2012
- [510] European Parliament. Directive 2014/26/EU on Collective Management of Copyright and Related Rights and Multi-Territorial Licensing of Rights in Musical Works for Online Use in the Internal Market Text with EEA Relevance; 26 February 2014
- [511] European Parliament. Directive 93/83/EEC on the Coordination of Certain Rules Concerning Copyright and Rights Related to Copyright Applicable to Satellite Broadcasting and Cable Retransmission; 27 September 1993a
- [512] European Parliament. Directive 93/98/EEC on Harmonizing the Term of Protection of Copyright and Certain Related Rights; 9 October 1993b
- [513] European Parliament. Directive 96/9/EC on the Legal Protection of Databases; 11 March 1996
- [514] World Intellectual Property Organization (WIPO). Berne Convention for the Protection of Literary and Artistic Works. Available from: <http://www.wipo.int/treaties/en/ip/berne>
- [515] European Commission. Right Environment for Digital Networks and Services. Policy Statement; 6 May 2015
- [516] European Commission. (14 September 2016c). Proposal for a Directive of the European Parliament and of the Council on Copyright in the Digital Single Market
- [517] European Medicines Agency. (2 October 2014). Policy on Publication of Clinical data for Medicinal Products for Human Use, Policy 0070
- [518] European Parliament. Report on Motion for a European Parliament Resolution on Towards a Digital Market Act. 2015. (2015/2147(INI))
- [519] National Human Genome Research Institute. (March 1997). Summary of the Report of the Second International Strategy Meeting on Human Genome Sequencing
- [520] SAS and Centre for Economics and Business Research Ltd (February 2016). The Value of Big Data and the Internet of Things to the UK Economy
- [521] Vickery G. Review of Recent Studies on PSI Reuse and Related Market Developments, European Commission, Brussels. 2010b. p. 3
- [522] Beijing Genomics Institute. Rapid open-source genomic analyses accelerated global studies on deadly *E. coli* O104:H4. Science Daily. 27 July 2011b. Available from: <https://www.sciencedaily.com/releases/2011/07/110727171501.htm>
- [523] CERN. European Organization for Nuclear Research. Home page. Available from: <https://home.cern/>
- [524] Data to Decisions CRC. About. Available from: <https://www.d2dcr.com.au/about/>

- [525] Digital Curation Centre. Home Page. Available from: <http://www.dcc.ac.uk/>
- [526] European Commission. Database Directive. European Commission Press Release Database. 19 February 2018 Available from: [http://europa.eu/rapid/press-release\\_IP-96-171\\_en.htm?locale=en](http://europa.eu/rapid/press-release_IP-96-171_en.htm?locale=en)
- [527] Europe PMC. About. Available from: <https://europepmc.org/About>
- [528] MIT Technology Review. New Disease Registry Gives Patients Some Privacy. 14 March 2013. Available from: <https://www.technologyreview.com/s/512456/new-disease-registry-gives-patients-some-privacy/>
- [529] National Human Genome Research Institute. A Brief History of the Human Genome Project. N.D. Available from: <http://www.genome.gov/12011239>
- [530] National Institutes of Health Commons. Big Data to Knowledge. Program Home Page. N.D. Available from: <https://datascience.nih.gov/commons>
- [531] Open Data CERN. ALICE Data Preservation Strategy. 2013. Available from: <http://opendata.cern.ch/record/412>
- [532] Open Data CERN. CMS Collaboration, CMS Data Preservation, Re-use and Open Access Policy. 2012. Available from: <http://opendata.cern.ch/record/411>
- [533] Organisation for Economic Cooperation and Development (OECD). Technology and Innovation Indicators. Directorate for Science, Technology and Innovation. Available from: <http://www.oecd.org/sti/msti.htm>
- [534] Lynn TE. China helps unravel new *E.coli* for embattled Europe. In: Reuters Science News. 3 June 2011. Available from: <http://www.reuters.com/article/2011/06/03/us-ecoli-china-idUSTRE75224620110603>
- [535] University of Glasgow. Research Data Policy. Available from: [www.gla.ac.uk/media/media\\_232425\\_en.docx](http://www.gla.ac.uk/media/media_232425_en.docx)
- [536] University of Oxford. Research Data Oxford. Available from: <http://researchdata.ox.ac.uk/home/introduction-to-rdm/>
- [537] U. S. Department of Health and Human Services. 'FDA's New Pilot Program Aims for More Transparency about New Drug Approvals' posted on 19 March. 2018. Available from: <https://blogs.fda.gov/fdavoices/index.php/2018/03/fdas-new-pilot-program-aims-for-more-transparency-about-new-drug-approvals/>
- [538] Office of the Press Secretary, Remarks Made by the President, Prime Minister Tony Blair of England (Via Satellite), Dr. Francis Collins, Director of the National Human Genome Research Institute, and Dr. Craig Venter, President and Chief Scientific Officer, Celera Genomics Corporation, on the Completion of the First Survey of the Entire Human Genome Project, Media Release, the White House, Washington, 26 June 2000. Available from: <http://www.genome.gov/10001356>
- [539] The European Federation of Pharmaceutical Industries and Associations (EFPIA). EFPIA and PhRMA Release Joint Principles for Responsible Clinical Trial Data Sharing to Benefit Patients. Media Release. 24 July 2013. Available from: <https://www.efpia.eu/news-events/the-efpia-view/statements-press-releases/130724-efpia-and-pharma-release-joint-principles-for-responsible-clinical-trial-data-sharing-to-benefit-patients/>