

Presentation for the Australian Academy of Law

The Legal and Ethical Regulation of the Internet of Things

The Internet of Things (IoT) has been described as ‘an evolving array of technologies that extend the idea of instantaneous connectivity beyond computers, smartphones, and tablets to everyday objects such as home appliances, cars, and medical devices.’¹ Legal and ethical issues arise including those of privacy as well as informed consent, equity, data protection and security. What are the challenges and potential solutions for the effective legal regulation of the IoT?

Introduction to IoT

The ‘internet of thing’s refers to:

physical objects with sensors, processing ability, software, and other technologies that connect and exchange data with other devices and systems over the Internet or other communications networks.²

In a domestic context it has been estimated that:

There were 12.4 billion IoT devices estimated to be connected around the world in 2020, a number expected to more than double to 26.4 billion by 2026 alone.³

Risks of IoT

Security, privacy, reliability, accessibility/equity and bias.⁴

The Law of IoT

- Privacy Act 1988⁵
- EU General Data Protection Regime (GDPR)⁶
- Voluntary code of practice for cyber resilience in IoT devices⁷
- Reform proposals for cyber secure IoT⁸

¹ Swaroop Poudel, *Internet of Things: Underlying Technologies, Interoperability, and Threats to Privacy and Security*, (2016) 31 Berkeley Technology Law Journal 997,1015.

² Wikipedia.

³ <https://www.digitaleurope.org/resources/setting-the-standard-how-to-secure-the-internet-of-things/#> .

⁴ See further Paterson, Jeannie Marie and Maker, Yvette, ‘AI in the Home: Artificial Intelligence and Consumer Protection’ forthcoming in Ernest Lim and Phillip Morgan (eds), *The Cambridge Handbook of Private Law and Artificial Intelligence* (Cambridge University Press, Forthcoming), Available at SSRN: <https://ssrn.com/abstract=3973179> or <http://dx.doi.org/10.2139/ssrn.3973179>.

⁵ Currently under review: see <https://www.ag.gov.au/integrity/consultations/review-privacy-act-1988>

⁶ Council Regulation (EU) 2016/678 of 27 April 2016 on the protection of natural persons with regard to the processing of data and on free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L119/1 (GDPR).

⁷ IoT Code of Practice: Securing the Internet of Things for Consumers (September 2020) <https://www.homeaffairs.gov.au/reports-and-publications/submissions-and-discussion-papers/code-of-practice#:~:text=On%203%20September%202020%2C%20the,of%20smart%20devices%20in%20Australia>. Also <UK Department for Digital, Culture, Media & Sport, ‘Code of Practice for Consumer IoT Security’ (2018) <www.gov.uk/government/publications/code-of-practice-for-consumer-iot-security> accessed 15 October 2021

⁸ Strengthening Australia’s Cyber Security Regulations and Incentives (2021) < <https://www.homeaffairs.gov.au/reports-and-publications/submissions-and-discussion-papers/code-of-practice>>. See also ‘Government Response to the Call for Views on Consumer Connected Product Cyber Security Legislation’ (*Department for Digital, Culture, Media & Sport*, April 2021) <www.gov.uk/government/publications/regulating-consumer-smart-product-cyber-security-government-response> accessed 15 October 2021.

- Draft EU AI Act⁹
- AI/IoT product liability¹⁰

AI ethics

- Human harms
- Justice
- Autonomy/consent/transparency
- The vulnerable
- Privacy
- Power
- Environmental harms
- 'Changes to human life/living'

Reflections on EU Law

⁹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL LAYING DOWN HARMONISED RULES ON ARTIFICIAL INTELLIGENCE (ARTIFICIAL INTELLIGENCE ACT) AND AMENDING CERTAIN UNION LEGISLATIVE ACTS

¹⁰ European Commission 'Inception Impact Assessment Adapting Liability Rules to the Digital Age and Circular Economy' (2021) < https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12979-Civil-liability-adapting-liability-rules-to-the-digital-age-and-artificial-intelligence_en>.