

Commonwealth Association of Legislative Counsel

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## Editor's Notes

The theme of the 2019 CALC Conference in Zambia was *Change and continuity in legislative drafting*. It recognised that although certain perennial issues remain relevant to legislative counsel over generations, there are also new challenges in a rapidly changing world. Among the most notable of these is the impact of disruptive technologies on the legal profession and legislative counsel, and a growing emphasis on the accessibility of legislation. This issue begins with two articles based on presentations that kicked off the Conference and squarely addressed these issues.

We begin with Dean Ubena John's wide-ranging survey of disruptive technologies, such as Uber and AirBnb, and their encounters thus far with legislation. He assembles a compelling case for an evermore urgent need to revise existing legislation and consider new regulatory approaches beyond the traditional model of command-and-control rules. If there is one thing driving legislative action in our modern world, and forcing a reconsideration of how laws have been drafted, it is disruptive technology.

Next, we turn to another compelling rethinking of legislation with a particular focus on the role of legislative counsel. Matthew Waddington introduces the concept of "machine-consumable legislation". At first blush, this sound rather terrifying, particularly to those involved in creating legislation: machines-eating laws. But the type of consumption involved here is in terms of transforming legislation into computer applications that people use to accomplish tasks governed by legislation. As peoples lives become more and more connected to apps, the potential for them to deliver legislative requirements increases exponentially. Matthew takes us into this world, exploring ways to facilitate this deliver and minimize conflicts between legislation and the apps that are supposed to replicate it.

The third article in this issue also deals with disruption, but of a very different kind. In September of 2018, a CALC Europe Regional Conference was held in Jersey to examine the impact of Brexit on legislation in the UK and the many other much smaller jurisdictions linked to it. Gibraltar is one of the latter and Paul Peralta takes us through the legislative implications of Brexit for a jurisdiction that is literally on the doorstep of Europe.

Finally, this issue concludes with reviews of two recently published books dealing with the drafting and interpretation of legislation. Duncan Berry provides his usual scholarly assessment of *Understanding Legislation: A Practical Guide to Statutory Interpretation* while Dylan Hughes, the First Legislative Counsel of Wales, provides an assessment of *Legislating for Wales*.

For those in the northern hemisphere, this issue provides much summer reading. And for those in the south, it will help fill the longer winter nights.

John Mark Keyes  
Ottawa, June, 2019

# The Role of Legislative Techniques in Regulation of Disruptive Technologies

Uben John<sup>1</sup>



## Abstract

*This paper examines the role of legislative techniques, including legislative and other regulatory techniques in the regulation of disruptive technologies. It reviews legislation (particularly from Tanzania), case law and legal scholarly works on legislative and regulatory techniques relating to technology regulation. The literature surveyed indicates that disruptive technologies have or are likely to render some laws obsolete or operationally ineffective or to cause legal and regulatory uncertainty.*

*Traditional law-making is based on command and control, and technology and behaviour specific rules. These techniques are increasingly unsuitable in regulating disruptive technologies. Regulation of disruptive technologies requires multiple and collaborative legislative and regulatory techniques. Legislative counsel should rethink how they draft legislation to make the law proactive, collaborative and evolutionary to fit into the changing trends of technology particularly the emerging disruptive technologies.*

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## **1. Introduction**

This paper examines regulation of disruptive technologies. Towards that end, it investigates the role of legislative and regulatory techniques. However, the paper does not cover judicial law making and its role in the regulation of disruptive technologies. The judicial law making cannot be legislated and hence it may not be relevant to legislative counsel. Nevertheless, precedents emanating from statutory interpretation guide the legislative counsel in their legislative drafting duties.<sup>2</sup> Moreover, the collaborative role of the legislature and the judiciary in the regulation of disruptive technologies is hard to ignore and could be an interesting topic for future studies.

The legislature and regulators all over the world have been concerned with the balancing of interests, including ensuring that enacted laws are implemented, consumers are protected, competition is fair, and technologies, including disruptive ones, are promoted. In many countries, intellectual property law (patent and copyright) has been enacted to promote and secure the rights of inventors and creators. However, controversy arises when such technologies negatively affect consumer interests, national security or other such matters. In other instances, disruptive technologies may produce unintended results or much worse situations whose outcome is unpredictable or undesirable. Laws are enacted to ensure that certainty and predictability in the legal system is achieved.<sup>3</sup>

Furthermore, the role of the legislature is *inter alia* to promote science, technologies and useful innovations. That has been achieved by incorporating this role in the constitutions of

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<sup>2</sup> See Calabresi, G., *A Common Law for the Age of Statutes*, (Harvard University Press: Cambridge, 1982) at 31-43 and 81-166.

<sup>3</sup> Wahlgren, P., “IT and Legislative development” (2004), 47 *Scandinavian Studies in Law* 601-617; Wahlgren, P., *Lagstiftning: Problem, teknik, möjligheter*, (*Legislation: Problem, Techniques, Possibilities*) (Jure AB: Stockholm, 2014).

democratic states.<sup>4</sup> However, since legislation is a scarce resource and law-making is a long and costly process,<sup>5</sup> the law as a set of rules regulating behaviour of individuals may not always keep pace with speed of innovation and technological changes.

Traditionally, where new issues worth regulating emerge resort has always been had to make new laws.<sup>6</sup> But the fast pace of technological changes and emerging new technologies have relegated law making process into a game of catching up.<sup>7</sup> In other cases the legislature has very little knowledge of the new technologies. Since little is known about new technologies their regulation becomes almost impossible, especially with the evidence - based law-making style.<sup>8</sup>

New technology is often regarded disruptive if it renders the existing law redundant or obsolete, or it makes regulation operationally ineffective or is too new to be regulated. That is a situation where regulatory environment becomes unpredictable. Consequently, the legislature is afraid or unsure of whether to enact a new law or not. Examples of disruptive technologies are Uber, Airbnb, drones, Netflix, M-PESA, eHealth and mobile health apps and services and autonomous vehicles. They call for legal scholars and legislative counsel to come up with innovative legislative and regulatory techniques to match the speed of emerging and disruptive technologies.

A good example here is taxi companies in Tanzania. These companies are now complaining that Uber is taking their potential customers. They argue that taxis ought to be permanently stationed in a particular locality. Unlike traditional taxis, Uber cars are mobile and could move to any location in a particular municipality. Taxis are subjected to local revenue obligations while Uber cars may not be. Regulators must intervene to strike an appropriate balance. This situation could be regarded as unfair competition. A similar scenario occurred in the case of M-PESA (a mobile payment system which was first launched in Kenya) when it emerged for the first time in Tanzania. Banks and other financial institutions were complaining that there was unequal competition since the M-PESA service providers were taking away potential customers. Disruptive technologies may further create legal uncertainty.

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<sup>4</sup> See Constitution of the United States of America, Article 8, section 8 (protecting useful innovations).

<sup>5</sup> See Kaal, W.A., at el., "Regulation Tomorrow: What Happens When Technology is Faster than the Law?" (2017), 6 *American University Business Law Review* 561.

<sup>6</sup> Wahlgren, 2004, above n. 3.

<sup>7</sup> Bennett Moses, L. "Recurring Dilemmas: The Law's Race to Keep Up With Technological Change", [UNSW Law Research Paper No. 2007-21](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=979861), (11 April 2007), Social Science Research Network (SSRN): available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=979861](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=979861) (accessed 24 March 2019); Eggers, W.D., Turley, M., & Kishnani, P., *The Future of Regulation: Principles for Regulating Emerging Technologies*, [Deloitte Insights](#), 2018.

<sup>8</sup> Ukena, J., *How to Regulate Information and Communications Technology? A Jurisprudential Inquiry into Legislative and Regulatory Techniques*, (Jure AB: Stockholm, 2015) 109-121.



In order for readers to appreciate what the author presents in this paper, key terminologies ought to be defined. This paper started with the introduction, which entails definitions of key terminology: “disruptive technologies” and “legislative techniques”. Included in that section is a description of how the regulation of new technologies have used traditional legislative techniques. That will inform the reader about what challenges the legislature and drafters face in the regulation of disruptive technologies. Thereafter, the paper turns to other regulatory techniques that may help to make regulation of disruptive technologies effective without stifling innovation. The article then deals with how legislative drafting may embed the approaches aforementioned in the regulation of disruptive technologies.

### **1.1 Disruptive Technologies**

What is wrong with disruptive technologies? Disruptive technologies have rendered or could render various laws obsolete or operationally ineffective. For example, a Road Traffic Act may not be sufficiently responsive to new technologies such as autonomous cars; civil aviation laws may rarely apply to unmanned aircraft. Due to disruptive technologies consumer interests may be at stake as in the case of autonomous cars being at fault: how is a consumer or a passenger protected and to what extent? The disruption brought about by disruptive technologies extends to fair competition. Existing companies may also be threatened as new start-ups unwary of regulation bring new innovations and technologies. The existing companies that have used old technologies may end up being relegated from the competitive market.

To understand regulation of disruptive technologies requires in the first place to know what disruptive technology is. In this paper disruptive technologies are new technologies that disrupt established norms/laws, businesses, etc. Disruptive technologies are the result of disruptive innovations.<sup>9</sup> Examples: Uber, Airbnb, drones and autonomous vehicles. Josh Daniel regards disruptive technologies as aiming at changing the way technology is being used and creating an entirely new industry.<sup>10</sup> They lead to fusion of markets and technologies. Hence companies exploiting disruptive technologies may be operating across the markets and jurisdictions with different regulators.<sup>11</sup>

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<sup>9</sup>Christensen, C.M., *The innovator's Dilemma: When New Technologies Cause Great Firms to Fail* (Harvard Business School Press: Boston, 1997) at 24-35 (defining the term “disruptive innovation”).

<sup>10</sup> Daniel, J., “[Disruptive Technologies and Government Regulation](#)” (*The Times of Israel*, 24 August 2018); See also Light, S., “When Business Blows up Policy: How to Regulate Disruptions”, Knowledge @Wharton, 2018, available at <https://knowledge.wharton.upenn.edu/article/when-business-blows-up-policy-how-to-regulate-disruptions/> visited on 30/1/2019.

<sup>11</sup> Howard, R., & Dupont, J., “How Can Government and Regulators Keep up with Disruptive Innovation”, Roundtable organized by Policy Exchange, July 2017.

Disruptive technologies are regarded as being risky to existing technology companies. They are clouded with uncertainties. Young start-ups are the ones rushing in and creating disruption with their new innovations.<sup>12</sup>

The concern about disruptive technologies is not for existing technology companies only. The legislatures in various legal systems are wary of these upheavals. Technology changes and new technologies affect business models, service models and the regulatory environment (government/regulators interest to ensure consumer protection (safety and security)).

The challenge is balancing interests: how to protect consumers and how to ensure fair competition while fostering new (and disruptive technologies. Therefore, a critical question for regulators is how to balance consumer protection and fair competition, implementing regulations without stifling new innovation or emerging disruptive technologies. To avoid unintended consequences of disruptive technologies while promoting innovation, regulators and technology developer ought to embrace collaborative regulations. Moreover, regulators' duties and functions may need to be readjusted or changed.<sup>13</sup>

But what really paved the way to development of these disruptive technologies? What enabled the emergence of disruptive technologies are: digitalisation, computerisation, the Internet (distributed networks and technologies – peer to peer or P2P), convergence of technologies, Artificial Intelligence (AI), Machine Learning, Big Data Analytics and Internet of Things (IOT).<sup>14</sup> These have led to the emergence of new and disruptive apps, Internet telephony, Online TV, Social media: Face Book, WhatsApp, Instagram, User Generated Content, IOT: Infrastructure as a Service (IaaS), Platform as a Service (PaaS) and Software as a Service (SaaS). It has also led to the emergence of new legal concepts, new legal relations e.g. IaaS, PaaS, SaaS; goods become services and vice versa, owners become licensees, etc. There are new service providers who are online based who do not own tangible infrastructure e.g. Uber (Taxi transportation without vehicle ownership), M-PESA, Bitcoin (financial and banking with no actual cash), Face Book (which creates no content), Airbnb, driverless vehicles, unmanned aircraft (drones), e-health and mHealth apps (issues of rights, duties and liability), etc.

Traditionally, regulations/laws have been developed slowly, in a piecemeal fashion, and meant to stay for a long time. This does not match the current pace of technological changes. Central to law-making are the legislative techniques. What they entail and how they function is a subject of next section.

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<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Kaal & Vermeulen, "How to Regulate Disruptive Innovation – From Facts to Data", 2016, [U of St. Thomas \(Minnesota\) Legal Studies Research Paper No. 16-13](#) SSRN paper at 13-18.

## **1.2 Legislative Techniques**

The term legislative technique here has been used in its broadest sense and as defined by other scholars<sup>15</sup> it includes aspects of legislative drafting. The legislative techniques take onboard

- the traditional command and control approach, sanctions, criminalisation; stages of law making i.e. enactment of the law and its promulgation;
- legislative drafting i.e. formulation of laws;
- adoption of other regulatory techniques such as use of computer programmes to enforce particular legislation, etc.<sup>16</sup>

## **2. The Role of Legislative Techniques in the Regulation of Disruptive Technologies**

How can legislative techniques help to address the legal challenges posed by disruptive technologies is a question examined in this section. Here the intention to examine the role of legislative techniques in the regulation of disruptive technologies. The focus is on legislative drafting as an aspect of legislative techniques. What approach to legislative drafting suits disruptive technologies?<sup>17</sup> Sir William Dale much earlier made a call for innovation in legislative drafting in 1977 when he visited Sweden to benchmark how they draft legislation.<sup>18</sup> His concern though was not regulation of disruptive technologies but rather the quality of legislation as a product of the work of legislative drafter. Nevertheless, Sir William Dale's strategy sounds relevant to the legislative drafters of today who are confronted with drafting instructions, which require them to draft legislation to regulate disruptive technologies.

### **2.1 What can legislative drafting do?**

It is trite that the legislation as a regulatory tool is a result of a long and ordered process. Somewhere along this process legislative counsel is involved who rely on drafting instructions from a bill-sponsoring government department. Unfortunately, the drafting instructions are not always plain. It is not surprising the instructing department may vaguely instruct the legislative counsel to prepare a bill to deal with disruptive technologies. Despite this difficulty, the role of legislative counsel is sacred because it is through legislation they draft that the legislature is enabled to communicate with the regulated. If legislative counsel

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<sup>15</sup> Ubena 2015, above n. 8 at 4-7; Wahlgren 2004, above n. 3 at 601-617; Wahlgren, 2014, above n.3 at 25-29; Summers, R.S., "The Technique Element in Law" (1971), 59 *Calif. Law Rev.* 733-751; Van der Velden, W., "The value-and goal-dependency of legislation and its methodology" in Frändberg, Å., & Van Hoecke, M., (eds.), *The Structure of Law*, (Uppsala, Iustus Förlag, 1987) at.53-100.

<sup>16</sup> Ubena 2015, *ibid.* at.4-8.

<sup>17</sup> Koops, B-J, "Should ICT Regulation be Technology Neutral?" in Koops, B-J, et al, (eds), *Starting Points for ICT Regulation*, (Asser Press: The Hague, 2006) at 77- 108.

<sup>18</sup> Dale, W., *Legislative Drafting-A New Approach*. (Butterworths: London, 1977).

perform their role badly, the legal system and the statute will be ridiculed and the implementation of such legislation will be almost impossible.

Certainly, the legislative counsel are not legislatures. However, they have wide powers in their professional role of drafting legislation.<sup>19</sup> They may advise the bill-sponsors not to legislate, to deregulate or simply recommend to do nothing. In other instances, they may suggest instructing departments to adopt alternatives to legislation.

Having described the position of legislative counsel, one may wish to present albeit briefly the drafting styles that could be employed in the regulation of disruptive technologies. The legislative drafting styles intimated here are detailed and non-detailed styles

It should be underscored that adoption of a particular drafting style depends on the nature and purpose of a particular legislation. For instance, procedural laws, tax and penal legislation tend to be detailed, aiming at achieving precision and avoiding ambiguity and vagueness. In that way it facilitates compliance. The detailed drafting style has been regarded as making legislation too restrictive and dense. Consequently, legislation becomes incomprehensible. Moreover, it tends to prescribe means for achieving legislative goals and is generally found under the precautionary principle, which holds back innovation.

The non-detailed drafting style uses general clauses in the legislation. Some scholars have loosely referred this as principles-based regulation and outcome-based regulation.<sup>20</sup> Through this style legislation becomes more comprehensible. It also leaves room for regulators to add more flesh through regulations. In so doing, regulators can exercise discretion and flexibility. The danger though is that the legislation may become vague and lead to conflicting interpretations. Non-detailed drafting could contribute to liberal regulation. The utilisation of liberal regulation should not be at the expense of consumer welfare and public safety.<sup>21</sup>

Alongside detailed and non-detailed drafting styles, there are other styles called technology-specific legislation and technology-neutral legislation. Technology-specific legislation prescribes specific technology to be regulated. The advantage is that such legislation is more focused and eliminates uncertainty as to its scope of application. The disadvantage is that when technology changes or converges, or new technology arises, the legislation becomes redundant.<sup>22</sup> Technology-neutrality on the other hand does not mention a specific technology to be regulated. For that matter it could be considered as pro-innovation. Technology-neutral

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<sup>19</sup> See also: Laws, S., "Drawing the Line" In Xanthaki, H., & Stefanou, C., (eds.), *Drafting Legislation: A Modern Approach*, (Routledge: London, 2008) at 18-34 (discussing the role of legislative counsel).

<sup>20</sup> See Black, J., et al., "Making a Success of Principles-based Regulation" (2007), 1 *Law & Financial Markets Rev.* 191 at 196; Kaal 2017, above n. 5 at 591; Howard & Dupont, 2017 above n. 11.

<sup>21</sup> Howard & Dupont, 2017, above n. 11.

<sup>22</sup> See the US *Controlling the Assault of Non-Solicited Pornography and Marketing Act (CAN-SPAM Act)* 117 STAT. 2700 PUBLIC LAW 108-187—DEC. 16, 2003 (legislation focusing on unsolicited communication including spam).

legislation becomes relevant despite technological change.<sup>23</sup> Although technology-neutral legislation may sound ideal, one should remember that technology-neutrality may make legislation vague. That may consequently create uncertainty and conflicting interpretations.<sup>24</sup>

Besides technology-specific and technology-neutral legislation, the legislative counsel may, in a bid to make legislation operationally effective, be asked to include a provision that reflects code as law.<sup>25</sup> This is a delicate process of embedding laws into technology, that is a legitimized code.<sup>26</sup> Several questions may be asked, how should such provision be drafted, and how often should such practice be adopted? These are matters to be decided by the legislative drafter and instructing office. In code as law, the legislation categorically states that technology will be used in the implementation of law to make it effective.<sup>27</sup> This disables the possibility of non-compliance. However, technocracy may be predominant as experts will influence the operation of law.

Therefore, legislative counsel should draft legislation in such a way that they promote innovation and foster new technologies – no banning of technologies as they are often neutral tools. The law that criminalizes or bans certain technology should be discouraged.<sup>28</sup>

In order to ensure consumers of disruptive technologies are protected the legislative counsel should embrace a shift from behaviour norms to duty of care norms and liability rules. Further to that, a shift from precautionary principle to innovation biased principle such as UK's regulatory sandboxes and British Innovation Principle. The latter embodies a requirement that regulation should not be introduced without assessing its impact on innovation.<sup>29</sup> These should be reflected in legislation regulating disruptive technologies.

The legislative counsel should assist the legislature by constantly recommending to them to focus on goals not means. This has also been referred to as principles-based regulation. Only

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<sup>23</sup> The examples of Tanzanian laws that are somewhat technology neutral: *Electronic and Postal Communications Act, 2010; Electronic Transactions Act, 2015, Media Services Act, 2016, National Payment System Act, 2016*. See also Koops, B-J., above n. 17 at 77-108.

<sup>24</sup> See Ukena, J., "Why Tanzania Needs Electronic Communication Legislation" (2009), 2 *The Law Reformer Journal* (Journal of the Law Reform Commission of Tanzania) 17-26. ISSN 0856-9878

<sup>25</sup> See Lessig, L., *Code and Other Laws of Cyberspace*, (Basic Books: New York, 1999) at 85-99 (discussing, *inter alia*, regulation of technology and regulation through technology).

<sup>26</sup> See Matthew Waddington, "Formal logic as a helpful tool for drafting – human v artificial intelligence?" in this issue of Loophole at ??.

<sup>27</sup> See section 44 of *Tanzania Copyright and Neighbouring Rights Act* (providing for adoption of technical measures of protection to secure copyright in the digital environment).

<sup>28</sup> *Tanzania Cybercrimes Act, Act No. 14 of 2015* has provisions dealing with illegal devices; See British Innovation Principle; UK's Regulatory Sandboxes; See Kaal et al, 2017, above n. 5 at 591-593. For details on UK Regulatory Sandbox, see FCA, Regulatory Sandbox, available at <https://www.fca.org.uk/firms/regulatory-sandbox> visited on 24th March 2019.

<sup>29</sup> Howard & Dupont, 2017, above n. 11.

when it is necessary should the law be prescriptive. That will enable the law to become proactive and responsive regulation as opposed to being reactive.<sup>30</sup>

If regulation of disruptive technologies is to be achieved, then regulation ought to be a collaborative process between regulators and the regulated. In that way, a sense of ownership of the rules by the regulated i.e. developers of disruptive technologies will make them responsible. Another advantage of legislative techniques is that they enable regulators to foresee technological trends and development and devise appropriate regulation. It is important to remember that legislation is not only a scarce resource but it is also a continuous process i.e. adaptive and evolving due to constant monitoring and evaluation of legislation.<sup>31</sup>

For general regulation of disruptive technologies, Gasser rightly suggests multimodal – regulatory tool box (combined regulatory approaches) and multilayer – national and global. But one may ask where has it worked? Reference could thus be made to Privacy Laws: EU General Data Protection Regulation, OECD, etc. Finally, the regulation should be multi-stakeholder: it should involve state and non-state actors.<sup>32</sup> Kaal and others came with their own approach in which they suggest that regulation of disruptive innovation has to focus on three questions, what, when and how: what” refers to subject matter of regulation; “when” relates to time for regulatory intervention; and “how” points to the manner or form of regulatory intervention.<sup>33</sup>

Eggers, Turley and Kishnani on their part have summarized the role of legislative techniques as follows: they ought to reflect adaptive regulation, and regulatory sandboxes from which one may choose appropriate regulatory mode (regulatory toolbox). They should also include outcome based regulation (focus on goal and not means for achieving the goal), risk-weighted regulation (regulation driven by data or evidence), and collaborative regulation (think global and multi-stakeholder engagement).<sup>34</sup> For emphasis, one ought to restate Lessig’s regulatory modes here: law, code, market, and norms.<sup>35</sup> The section below discusses them briefly.

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<sup>30</sup> Kaal et al 2017, above n. 5 at 584-585.

<sup>31</sup> See Mader, L., “Evaluating the Effects: A contribution to the Quality of Legislation” (2001), 22 *Statute Law Review* 119-131.

<sup>32</sup> See Gasser, U., “The Impact of Law and Regulation on Digital Technologies in Thailand”, presentation made in Bangkok, August, 23, 2017, at 25.

<sup>33</sup> Kaal, et al 2017, above n. 5 at 571-575.

<sup>34</sup> See Eggers, W.D., Turley, M., & Kishnani, P., 2018, above n. 7 as 2; see also Kaal, 2017, above n. 5 at 585-593 (discussing data driven regulatory intervention, the principles-based approach and minimum regulatory “sandboxes”). The Regulatory sandboxes approach has already been adopted in FinTech in UK and Singapore.

<sup>35</sup> See Lessig, L., *Code and Other Laws of Cyberspace* (Basic Books: New York, 1999) at 85-99.

### **3. Regulatory Tool Box – other regulatory techniques**

In discussing other regulatory techniques or approaches, we will borrow approaches developed by other scholars, in particular Lessig.<sup>36</sup> These approaches entail complementary or alternative measures to legislation such as self-regulation and co-regulation, code as law, proactive and evolutionary approaches. What is striking though is that the scholars who are supporting adoption of other regulatory techniques are not completely divorcing traditional detailed legislative style despite its command and control nature. Yet other scholars have advocated for non-legislative regulatory approaches such as the use of “nudge” and “threats.”

Baldwin regards “nudging” as a regulatory technique that involves structuring the choices that people make to lead them towards particular outcomes.<sup>37</sup> Under nudge, the regulator uses strategies that enable people to make better choices. A good example is making regulations that restrict fast-food owners from building their quick service restaurants close to schools. This stops students from eating unhealthy food, and hence remain healthy. Another example is regulation that require train station to be built at least 10 minutes walk from people’s residences to influence them to walk as body exercise. If a nudge fails to achieve regulatory goals, the regulator might resort to legal instruments. Despite their potential, authors have noted that the concept of “nudge” ought to be explained as there are different degrees of nudge that might affect its effectiveness. In addition to that there are still concerns regarding representation and ethical nature of such strategy.<sup>38</sup>

Threats on the other hand are aimed at influencing behaviour in a different way. The regulator may threaten to make regulation. In other instances, they may threaten to impose a fine upon the regulated entities. The mere fact that the regulator threatens to make a regulation or to impose a fine influences the behaviour of the targeted entities.

Threats are alternatives to rule making and adjudication. When the regulated entities do not respect the threats, rule-making may be triggered. The threats can prove to be useful in situations where a regulated sector is characterised by constant changes and uncertainty and legislative intervention is thought to be premature.<sup>39</sup>

However, Cortez rejects the use of threats to regulate disruptive technologies. Using USA Food and Drugs Administration (FDA) as an example, he showed how the FDA’s use of

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<sup>36</sup> Lessig, 1999, *ibid.* See also Wahlgren, 2004, above n. 3; Koops, above n. 17; Dommering, E., & Asscher, L., (eds), *Coding Regulation-Essays on the Normative Role of Information Technology*(Asser Press: The Hague, 2006); Hood, C. & Margetts, H.Z., *The Tools of Government in the Digital Age*, (Palgrave Macmillan: Basingstoke, 2007); Baldwin, R., et al., *Understanding Regulation-Theory, Strategy and Practice*, 2<sup>nd</sup> ed. (Oxford University Press: Oxford, 2012); Uben, 2015, above n. 8.

<sup>37</sup> Baldwin, R., “From Regulation to Behaviour Change: giving nudge the third degree” (2014), 77 *Mod L. Rev.* 831.

<sup>38</sup> Baldwin, 2014, *ibid.* For further details on “nudge” see Thaler, R. & C. Sunstein, C., *Nudge* (Yale University Press: New Haven, 2008).

<sup>39</sup> Wu, T., “Agency Threats” (2011), 60 *Duke Law Journal* at 1842-1843.

threats to regulate computerised medical devices failed.<sup>40</sup> He instead advocates experimenting with timing rules, sunset clauses, deadlines, alternative enforcement mechanisms and other measures.<sup>41</sup> He generally supports the use of legally binding actions rather than threats. To him threats are for the short term. He prefers regulators to adapt old regulatory frameworks to new technologies.<sup>42</sup> This assumes there is nothing new under the legal sun.

What should be remembered is that there is no one-size-fits-all approach. Each approach has to be adopted depending on the regulatory context, i.e. the nature of the technology to be regulated and the context of a particular legal system. The aim of the paper is not to make a detailed analysis of legislative and regulatory techniques but rather to point out some areas where the techniques could work and to point out danger areas. In some sections the paper presents more questions than answers. It is also a thought provoking paper. The next subsections examine other regulatory techniques, which operate as alternative or complement the traditional legislative techniques.

### **3.1 Technological Approach**

The Technological Approach makes use of technology and hence some scholars have regarded in terms of the concept of “code as law”. Code or architecture’s analogy is the road speed-bump. The road speed bump aims at forcing drivers to lower the speed when reaching point where there are speed bumps and in that way to observe the legally required speed for either protection of pedestrian crossing or animals, or maybe there is sharp corner of strong wind or a bridge nearby. If a person continues to over speed, there is risk of crashing or damaging the car in an attempt to cross over the speed bump. Similarly, codes (i.e. technical measures of protection such as digital right management systems) aim at protecting either the information system itself or the material stored in the information system (electronic device); and they may operate as spyware. In some of the codes, attempts to bypass them may end up destroying or rendering the computer of the offending user functionless.<sup>43</sup>

The adoption of code as regulatory strategy grew after the publication of Lessig’s *Code and Other Laws of Cyberspace*.<sup>44</sup> Lessig advocated the use of technology to address regulatory

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<sup>40</sup> Cortez, N., “Regulating Disruptive Innovation” (2014), 29 *Berkeley Technology Law Journal* 175-228.

<sup>41</sup> See Cortez, 2014, *ibid.* at 218-220.

<sup>42</sup> Cortez, 2014, *ibid.* at 228.

<sup>43</sup> See *Hull v. Sony BMG Music Entertainment Corp.* No. BC 343385 (Cal. Super Ct. Nov. 14 2015) which dealt with the issue of rootkit embedded into Sony CD. The rootkit was a spyware that explored the computer or device that played the CD and left vulnerable to malware. It also degraded the device’s performance. Hence raised issues of privacy, security and generally consumer protection. See also Bob Brown, “Sony BMG Rootkit Scandal: 10 Years Later”, *Network World*, 28 October 2015, available at <https://www.networkworld.com/article/2998251/sony-bmg-rootkit-scandal-10-years-later.html> visited on 4/6/2019.

<sup>44</sup> Lessig, 1999, above n. 35 at 85-99.



problems brought by technology changes or the emergence of new technologies. The code (or architecture) is regulation through technology. The aim could also be to make law enforcement effective. It may also be used to eliminate the possibility of non-compliance with regulations. However, in order to appreciate how a code is developed, the legislature and legislative counsel must know how technology evolves. This will enable the legislature to know what is technically being delegated to code developers.

The legitimized code as law as opposed to code as code may make the law practically effective despite difference in the laws of various jurisdictions. However, that ought to be done while recognizing that code as law is not merely law enforcement strategy. Rather it is a law-making process because legal rules are transformed into computer codes.<sup>45</sup> Some questions that are likely to arise include who makes the law? Is it the legislature or computer programmer? Who implements or enforces the law? Is it the law enforcement agency or computer programmer the architecture of the code? These are difficult questions that require well thought-out answers.<sup>46</sup>

### **3.2 Complementary Approach**

Common names for the complementary approach are alternatives to legislation, soft law, self-regulation and co-regulation. It is often based on contracts such as codes of conduct where parties signify their intention to be bound by their own code of conduct. There are other instances where the legislation may require the regulated sector or entities to adopt self-regulation. This is enforced or directed self-regulation.<sup>47</sup> If one does not adopt self-regulation, one commits an offence.

### **3.3 Proactive Approach**

Proactive approach is based on the assumption that legal problems may be anticipated. They may be addressed proactively rather than reactively. With such an approach, legal problems are foreseen and the legislature devises mechanisms to avoid their actual occurrence, or if they occur then to salvage existing legal mechanisms installed well in advance. Insurance policy and legal framework is one example of such strategy. The insurance law operates in the context that the insurance company provides coverage for problems that are anticipated although they may not happen. It requires foreseeability and hence addressing the problem before its actual occurrence. A proactive approach requires foreseeability and preparedness.

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<sup>45</sup> See Ukena, 2015, above n. 8 at 240-276; Asscher, L., "'Code' as Law. Using Fuller to Assess Code Rules" in E. & Dommering, *Coding Regulation-Essays on the Normative Role of Information Technology*, (Asser Press: The Hague, 2006) at 61-90; Lessig 1999, above n. 35 at 85-99; Scharf, D., "Dirt in the Machine of Government? Legal Challenges Connected to Computerized Case Processing in Public Administration" (1994). 2 *Int J Law Info Technol* 327-354.

<sup>46</sup> Ukena, 2015, above n. 8 at 240-276 (discussing regulation through code and its challenges).

<sup>47</sup> See *Tanzania Electronic and Postal Communications (Online Content) Regulations*, Government Notice No. 133 of 2018.

To that extent, one may equate it to insurance. There is also a continuing debate as to whether reimbursement (health insurance) should cover disruptive technology-related services such as electronic health (eHealth) services.<sup>48</sup> If the regulators will reach consensus then insurance may somewhat become a strategy of regulating disruptive technology-related services.

Another example is the application of economic incentives, tax exemptions, regulatory exemptions or forbearance as reward to innovative regulated companies that address legal problems before their actual occurrence.<sup>49</sup>

To avoid legal problems that disruptive technologies may cause, the regulators may also adopt social strategies, for example providing educational programmes and supplying consumers with information on the technologies. In Tanzania, the Police and the Tanzania Communications Regulatory Authority (TCRA) have changed a strategy in dealing with fraud and theft in mobile money transactions. Instead of putting more efforts in prosecuting criminals in M-PESA transactions, they are concentrating on supplying information to consumers and users of mobile money services and it is proving to be effective.

### **3.4 Evolutionary Approach**

The evolutionary approach is a shift from behaviour prescriptive norms to a duty of care norm and liability rules. Instead of focusing on behaviours of users and manufacturers or technology developers, the regulator shifts focus to crafting duty of care norms and liability rules. For example, for Driverless Cars or autonomous vehicles Volvo has said it will assume liability for its driverless cars. According to this approach, any malfunction in the car will be the fault of manufacturer.<sup>50</sup>

The legislature and regulator state the goal or standard of care the manufacturers or developers should strive to achieve. If they are not achieved or the care exercised is below standard then the regulated entity may face liability. Traditionally in common law jurisdictions the law of negligence was developed this way.<sup>51</sup> In other jurisdictions the law of manufacturer liability was also developed that way.

Regulation of social media and online content in Tanzania (Online Content Regulations) is an example of where various regulatory techniques have been embedded. The regulations prescribe offences but it combines penal sanctions, co-regulation and directed self-

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<sup>48</sup> EU Commission Communication, COM (2012) 736 eHealth Action Plan 201-2020 – Innovative Healthcare for 21<sup>st</sup> Century; Hannah, R. Merston, Shannon Freeman & Charles Musselwhite (eds), *Mobile e-Health*, (Springer: Berlin, 2017); Carlisle George, Diane Whitehouse, & Penny Duquenoy (eds), *eHealth: Legal, Ethical and Governance Challenges*, (Springer: Berlin, 2012).

<sup>49</sup>Section 70 *Electronic and Postal Communications Act*, Act No. 3 of 2010 (granting powers to Tanzania Communications Regulator Authority to offer regulatory forbearance to licensees in certain cases).

<sup>50</sup> See Eggers, 2018, above n. 7.

<sup>51</sup> See *Donoghue v. Stevenson*, [1932] UKHL 100.

regulation (i.e. require service providers to introduce and enforce their own code of ethics). In addition to that registration and licensing have been extended to online services and platforms. In Tanzania registration of bloggers, social media, online content providers, and Internet cafes is compulsory.<sup>52</sup>

#### **4. How do legislative techniques apply to disruptive technologies?**

This section presents examples of disruptive technologies. It also analyses how legislative and regulatory techniques may help to regulate them. The challenges posed by emerging disruptive technologies that do not mean legal systems have never faced disruptive technologies before. A classic example of disruptive technology is the invention of computer. The computer was disruptive because it led to people losing their jobs as manual routine works were computerized. The offences committed via computer networks or crimes targeting computers were at a certain point in time thought to be beyond the reach of the legislature.<sup>53</sup> This, was compounded with the network of all networks called the Internet with its distributed and decentralized nature, which made it difficult to control. Nevertheless, the legal systems and the legislature in almost all countries eventually managed to regulate computer technology and the Internet. The arguments that the Internet (Cyberspace) cannot be regulated by the law turned out to be highly debatable.<sup>54</sup> What the legislature and regulators did was to reconfigure regulatory modes to suit the technology of the day. Despite such attempt, the regulation of the Internet is still debatable today as the current controversies involving the Face Book and other social media demonstrate. We argue that reconfiguring regulatory modes and adopting mixed regulatory techniques is essential if a bid to regulate disruptive technologies is to become effective.

##### **4.1 Uber**

Uber is a taxi company that does not own any vehicle. The regulation of Uber in EU has provided an interesting scenario. The European Court of Justice has declared Uber a taxi company though Uber owns no actual cars.<sup>55</sup> The Uber controversy could be compared to Skype.<sup>56</sup> Skype is a software and not telecom company. However, Skype via its software

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<sup>52</sup> See *Tanzania Electronic and Postal Communications (Online Content) Regulations*, Government Notice No. 133 of 2018.

<sup>53</sup> Barlow, J., *A Declaration of the Independence of Cyberspace* (1996, February 8th ), Retrieved February 25th , 2019, from Electronic Frontier Foundation: <https://projects.eff.org/~barlow/Declaration-Final.html>.

<sup>54</sup> Lessig, 1999, above n. 35 at 85-108.

<sup>55</sup> See Owen Bowcott, "Uber to face stricter EU regulation after ECJ rules it is transport firm", *The Guardian*, 20 December 2017, available at <https://www.theguardian.com/technology/2017/dec/20/uber-european-court-of-justice-ruling-barcelona-taxi-drivers-ecj-eu>, (accessed on 29 March 2019). For the view that Uber may not be disruptive technology see Christensen, 1997, above n. 9 at 11 (presenting features of disruptive technologies which Uber might not possess). See also Bailey, D., "Why Airbnb Is Disruptive Innovation and Uber Is Not", available at <https://www.inc.com/dave-bailey/why-airbnb-is-disruptive-innovation-and-uber-is-not.html>, (accessed on 21<sup>st</sup> March 2019).

<sup>56</sup> See Ubena, 2015, above n.8 at194-207.

provides and enables Internet telephony services. It enables people to make cheap and free Internet calls. Uber enables drivers who have installed the app in their cars to be searched and found easily by customers who need transport. Skype, just like Uber, is a software application. Its regulation was somewhat difficult and still is difficult in the countries such as Tanzania.

The regulator of electronic communication in Tanzania requires applications service providers, including Skype, to acquire a licence.<sup>57</sup> Perhaps the issue here is enforcement of regulations. Skype is not registered in Tanzania and neither is Uber. To avoid wrangling with regulators, Uber request the drivers to possess a certain class of driving licence, register the cars as passenger cars, etc. However, these requirements do not mean that Uber has done registration in Tanzania. They are rather part of self-regulation. Thus, to regulate Uber requires the adoption of complementary techniques other than legislation only. The regulation of Uber through a complementary approach is based on contract. The user is required to read the End User Licensing Agreement before installing and using the Uber app. The reliance on such an agreement is self-regulation. However, co-regulation also comes into play. Uber cars are required to register with both the Tanzania Revenue Authority, and the Surface and Marine Transport Regulatory Authority (SUMATRA) as commercial passenger transportation. They are also required to pay tax. However, Uber may not be subjected to local authority obligations because they do not have a specific locality in a particular council or municipality where they are used. This could somewhat be unfair competition because ordinary taxi companies have to comply with the local authorities' regulations and other obligation they impose.

Even though Uber regulation as a taxi poses a challenge in Tanzania, its technology side (software application) is subject of regulation. Thus, Uber as a company is required to have a licence (application service licence) under *Electronic and Postal Communications Act* licensing framework.<sup>58</sup> That is because Uber is providing a software application (Uber) as a service. Nevertheless, this has never been enforced in Tanzania. Just like Skype regulation, Uber regulation has proved to be controversial.<sup>59</sup> In addition, taxi that use Uber are required to be registered. Nevertheless, it is not clear how passenger or consumer information (personal data) is handled. Uber is somewhat self-regulating and relies on contracts with the drivers who use its app on one hand and the consumers (passengers) on the other hand.

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<sup>57</sup> See s.5 of *Tanzania Electronic and Postal Communications Act (EPOCA)*, Act No. 3 of 2010.

<sup>58</sup> EPOCA Ibid.

<sup>59</sup> Ukena, 2015, above n.8 at 194-207 discussing inter alia the challenges of regulating Skype. Voice over Internet Protocol (VoIP) was disruptive technology as it disrupted the traditional telecommunications industry. Incumbent telecommunications companies were concerned with VOIP as it enabled new companies to enter the market creating new wave of competition. Similarly, Web 2.0 led to emergency of user-generated content which threatened displacing text editors, publishers and distributors.

## **4.2 Airbnb**

Airbnb is a real estate company which does not own any property. What they actually do is to provide an app which users download and use to obtain accommodation. Unlike other apps, the Airbnb app enables customers to search for estates, hotels, and apartments of their interest in any country. Therefore, the technique applied here seems to be contractual. The Airbnb has a contract with estates owners on the one hand and the users have End User Licensing Agreement or terms and conditions of service on the other hand. Despite existence of such contractual relationship, consumers may not have protection especially where they decide to cancel the order or other unforeseen events occur. It is not clear if they will have refund to the money paid. The users are therefore advised to read the terms and conditions more carefully. What is more intriguing is that the Airbnb is cross border service. To address such regulatory challenges law-making has to be done at international level. However, Airbnb is unregulated in Tanzania.

## **4.3 Autonomous vehicles**

Autonomous vehicles present another example of disruptive technologies. They too are unregulated because they have not yet entered the Tanzania market. According to current Tanzanian laws regulating land/surface transportation and SUMATRA, such cars may not be used in Tanzania.

Autonomous vehicles could be regulated through deploying the evolutionary approach where duty of care norms and liability rules will be adopted instead of behaviour norms. Since they are self-driving, the duty of care norms will apply to manufacturers instead of drivers. What is unclear though is what happens if the fault is not attributed to manufacturer's negligence? How should the relationship between manufacturers and computer system developers be regulated? Perhaps the law of contract will still apply in such situation.

The Tanzania *Road Traffic Act* prescribes offences committed by drivers, for example, a driver who drives negligently or carelessly commits an offence.<sup>60</sup> This cannot apply to autonomous vehicles as it will be hard to define who is a driver.<sup>61</sup> Who should be held liable in case of malfunctioning and the resulting injury? Is it a car manufacturer, a car owner, or a developer of computer system controlling the functioning of the car or the passenger?<sup>62</sup> However, one may wish to take note of the definition of the term "driver" under the current *Road Traffic Act* of Tanzania. The Act defines the term "driver" in relation to a motor vehicle or any other vehicle to mean a person who drives or attempts to drive or is in charge

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<sup>60</sup> Tanzania *Road Traffic Act*, Cap 168 RE 2002.

<sup>61</sup> *Ibid.*, s.2.

<sup>62</sup> See Kaal, et al, 2017, above n. 5 at 567-572.

of the vehicle.<sup>63</sup> Now this definition poses challenges to the use of autonomous vehicles. The law assumes the driver or whoever controls the vehicle is a person.

Nevertheless, evolutionary techniques incorporating liability rules and duty of care norms may constitute a solution to autonomous-vehicle regulation. Volvo has suggested placing responsibility (fault) on vehicle manufacturers for malfunctioning autonomous vehicles if the accident relates to system failure.<sup>64</sup> The use of liability rules has started to operate in Tanzania, though in autonomous-vehicle regulation rather in online-content regulation.<sup>65</sup>

#### **4.4 Crypto-currency**

Crypto currency, in particular Bitcoin, has also caused disruption in the existing financial and payment systems regulation. In an attempt to draft crypto-currencies legislation, the legislative drafters may adopt the functional equivalence principle. This approach has already been used in the regulation of electronic signatures where electronic signatures serve a purpose similar to that of handwritten signatures.<sup>66</sup> The other approach that may be embedded in the regulation of crypto currency is code/architecture. It is also not clear why crypto currency should be controversial while M-PESA is being used. M-PESA is an application. Therefore, Crypto-currency such as Bitcoin may be regulated by payment system regulations.<sup>67</sup> The challenges that could be foreseen include money laundering issues. Moreover, unlike M-PESA whose service providers are registered and regulated by a central bank (for example, the Bank of Tanzania), the crypto-currency (for example, Bitcoin) exists online only. For that matter, crypto-currency owners or service providers may be located in different jurisdictions beyond the reach of local regulators in places where their services are enjoyed. Along with these techniques, self-regulation (for example, contract based and code as law) may be adopted.

#### **4.5 Drones**

Drones are unmanned aircraft. With unmanned aircraft increasingly finding their way into domestic and commercial air transportation (Emirates testing drones for passenger air transportation).<sup>68</sup> The question for regulators should be asking themselves is whether the Civil Aviation laws could apply to drones? This correlates with Cortez's suggestion that old

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<sup>63</sup> See Section 2 of the Tanzania *Road Traffic Act*, Cap 168 RE 2002.

<sup>64</sup> See Eggers, 2018, above n. 7 at 6-7.

<sup>65</sup> See Tanzania *Electronic and Postal Communications (Online Content) Regulations* of 2018.

<sup>66</sup> See section 6(1) of the Tanzania *Electronic Transactions Act*, Act No.13 of 2015.

<sup>67</sup> See section 3 of the Tanzania *National Payment Systems Act*, Act No. 4 of 2015 (defining e-money).

<sup>68</sup> Damian Radcliffe, "Driverless air taxis, drones, pods: Dubai puts future tech at heart of transportation", ZD Net, 23 January 2019, available at <https://www.zdnet.com/article/driverless-air-taxis-drones-pods-dubai-puts-future-tech-at-heart-of-transportation/> (last accessed on 4/6/2019).

regulation could be adapted to new technologies.<sup>69</sup> But such suppositions should take into consideration similarities or differences in the underlying technologies and their operation.

In Tanzania, the Civil Aviation Authority has issued some regulations on drones.<sup>70</sup> To operate drones, one is required to have a licence. In such a situation can regulators use technology neutral laws? Most aviation laws were enacted with the assumption that aircraft cannot fly without a pilot. But due to technology changes, that assumption is now false. Despite such challenges, drones can still be regulated through combined techniques such as embedding law, self-regulation and code.

The problem with drones is that they have brought some serious security concerns.<sup>71</sup> The drones may be used by criminals to smuggle or transport illegal goods and even carry out attacks in a particular country. This calls for regulatory intervention through legislation. What matters here is to ensure that regulation does not stifle innovation. Technology is a neutral tool and it depends on how the user uses it and for what ends.

#### **4.6 Cryptography**

Similar to the regulation of drones is the regulation of cryptography (encryption technology). In some countries, especially members of the EU, strong encryptions are controlled.<sup>72</sup> It may be argued that strong encryption is good for securing citizens right to privacy. However, considering national security risks that terrorists could use encryption to communicate secretly, there is a need to control encryption technology through law. Cryptography is dual-use product or technology. It may be used for lawful or unlawful purposes. The nature of cryptography justifies its regulation.

#### **4.7 Electronic Health (E-Health) and Mobile Health (M-Health)**

E-Health and M-Health technologies and devices may also be categorized as disruptive technologies. They be classified as such because the devices or services may be provided by

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<sup>69</sup> Cortez, above n. 40 at 175-228. In Canada the Transport Authority has stipulated several requirements for flying drones and makes use of regulations ([Canadian Aviation Regulations, Part IX](#), added by SOR/2019-11) to regulate drones: see Transport Canada, Flying your drone safely and legally, available at <https://www.tc.gc.ca/en/services/aviation/drone-safety/flying-drone-safely-legally.html> (accessed on 5 June 2019).

<sup>70</sup> Tanzania *Civil Aviation (Remotely Piloted Aircraft Systems) Regulations*, Government Notice No. 758 of 2018.

<sup>71</sup> Walsh, N.P., et al., "Inside the August Plot to Kill Maduro with Drones", CNN, 14 March 2019, available at <https://edition.cnn.com/2019/03/14/americas/venezuela-drone-maduro-intl/index.html> (accessed on 23 March 2019).

<sup>72</sup> See Council Regulation (EC) No.428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfers, brokering and transit of dual-use items (cryptography is regarded as dual-use product). Even in developing country cryptography is regulated see Tanzania *Electronic Transactions Act*, Act No. 13 of 2015 (part VII sections 33-36, especially section 36 making it an offence to provide cryptographic services without a licence).

people who are not found in a country where the devices or services are provided. How are the rights, duties and liabilities defined in such a relationship?<sup>73</sup> A patient is in Tanzania, but the physician providing services (including medical advice) online is located in the USA. Can health or medical laws of Tanzania apply to such physician? More complex is where an M-Health device misdiagnoses a person. Or worse, where the device malfunctions and consequently the user of the device suffers certain injuries. Who should be held liable? Is it the local seller of the device or the manufacturer? Moreover, the malfunctioning could be due to poor Internet connectivity. Should the Internet Service be held accountable?

Therefore, in regulating E-Health and M-Health multiple approaches could be adopted: traditional command and control, combined with contract, code and proactive (health insurance could extend to health apps) and evolutionary approaches. M-Health and E-Health apps are disruptive technologies because the diagnosis and prescription of drugs is normally done by a physician who has seen the patient. With these apps the physicians may be located in different jurisdictions. The laws where the service is provided and where the service provider is located may be different. Moreover, the laws of one territory cannot apply in another territory. The risk is that the health apps and physicians providing services online may be sued everywhere the services are provided or apps are used.

Another challenge is what if there is misdiagnosis or wrong prescription of drugs due to a fault in the mobile health devices. Who should be held responsible for such faults? Is it the app provider or the Internet service provider? Therefore, a combination of techniques is essential here. The contract-based technique relies on the law of contract. Thus, the parties may rely on a contract between apps or device manufacturers and users. The evolutionary approach could be useful as it will entail duty of care norms that the manufacturers of mobile health devices should exercise duty of care and, in case of fault, they will be held liable. It is up to manufacturers or service providers how the said duty of care is to be achieved.

## **5. Conclusion: the Future is Now**

The regulation of disruptive technologies will be effective if multiple and collaborative approaches are embraced combining traditional legislative techniques and other regulatory techniques.

Regulation ought to be non-coercive. This will encourage the regulated to willingly comply with the legislated requirements. For that matter, to induce compliance, rewards may be given to the regulated who complied with legislation without coercion from law enforcement agencies such as the police.

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<sup>73</sup> Giulio Coraggio, "Top 5 Legal Issues of eHealth and Telemedicine", *Gaming Tech Law*, 23 December 2014, available at [www.gamingtechlaw.com/2014](http://www.gamingtechlaw.com/2014) (accessed on 24 March 2019).



The success of the mobile payment system in Tanzania is a result of a trial and error approach to regulation. The regulator, namely, the Bank of Tanzania, did not start by setting strict guidelines for the M-PESA service provider. Instead, it started with a non-regulation and trial and error approach. During that time the regulator was familiarising itself with the nature of service provided: determining whether it is a telecommunications service or a financial transaction. This learning process took some years from 2007 (when mobile payment started in the country) to 2015 when the *National Payment System Act* was enacted.<sup>74</sup> The regulator was concerned that if they hurriedly regulated the service it would stifle innovation. It was also possible to get things wrong because the regulatory environment was not stable yet as it was still evolving.

During the inception of mobile payment services in Tanzania, the service was self-regulating. For services that are not yet mature, self-regulation may be a good technique. Where legislation is thought to be necessary, then it ought to be goal-steering than norm-steering, focusing on goals and not means to achieve them. Gradually the regulatory framework shifts from behaviour norms to duty of care norms and liability rules.<sup>75</sup> The future is now and it is high time the combined regulatory techniques are given serious consideration when legislative counsel are asked to develop a particular legislative solution.

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<sup>74</sup> See the *National Payments Systems Act*, Act No. 4 of 2015. See also Simone Di Castri and Lara Gidivani, "Enabling Mobile Money Policies in Tanzania: A 'test and learn' approach to enabling market-led digital financial services", Groupe spéciale mobile (GSM), February 2014, available at <https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2014/03/Tanzania-Enabling-Mobile-Money-Policies.pdf> (accessed on 4/6/2019).

<sup>75</sup> Ukena, 2015, above n. 8 at 4.

## Machine-consumable legislation: A legislative drafter's perspective – human v artificial intelligence

Matthew Waddington<sup>1</sup>



### Abstract

*This article discusses “machine-consumable legislation”, or “rules as code”, which was first raised in New Zealand, spread to New South Wales, and is now being considered in several other Commonwealth countries. Many governments already publish their legislation in a coded form that enables a computer to read identifying features of each provision in the legislation (such as that it is section 19(4)(a)(ii) of the XYZ Act as it was in force on a particular past date). But that coding leaves the computer unable to extract any of the meaning of the provision (beyond searching for words). Many governments also have coded versions of some legislation to do such things as calculate social security entitlements and issue payments, and many commercial firms sell software that performs similar functions for the public. “Machine-consumable legislation” combines these two approaches, so that policy rules would be digitised before and during the legislative drafting process. The resulting coded version could be published (on a site from which computers can access it automatically) in tandem with the enacted legislation. The article looks at the current state of thinking (still in its early stages) as to how that could be done and the uses to which it could be put. The article then considers the issues raised for legislative drafters by machine-consumable legislation, and how we might engage with the work being undertaken to explore the benefits it could bring, while contributing our understanding of the potential pitfalls.*

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## Introduction

In this article I explain, from the perspective of legislative counsel in the Commonwealth, some of the thinking behind “machine-consumable legislation”, otherwise known as “rules as code”. That concept is still developing and slippery (it was previously known as “legislation as code” and is an off-shoot of “computational law”). It is about how to ease the encoding (into computer programs) of the policy rules that we embody in the legislation we draft, but it has implications beyond that. I offer a snapshot of developments in several countries, consider how they might affect our legislative drafting work, and suggest that we might meet our IT colleagues somewhere in the middle.

I am not looking at the more extreme suggestions that technology-driven disruption will make lawyers redundant as artificial intelligence (AI) and “block-chain” technology take over understanding and administering all law in all jurisdictions. Every so often claims are made that robots will soon replace particular professions, often including lawyers.<sup>2</sup> Robots may indeed soon give legal advice, as some “access to justice” projects are already working on “chatbots” that provide automated advice.<sup>3</sup> In the more excitable reaches of Twitter there are even occasional sweeping claims that block-chain will replace contracts, that autonomous vehicles will dispense with the need for motoring legislation, that all policy for legislation will be crowd-sourced, or that AI will soon be able to read and understand all statutes, and even all case-law. Some of this seems to reflect a feeling among some in the technology world that AI can eliminate human bias, so it should replace both judges and

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<sup>2</sup> See for example Rory Cellan-Jones “The robot lawyers are here - and they’re winning” (BBC news, 1 November 2017, <https://www.bbc.co.uk/news/technology-41829534>) who said “Yes, lorry drivers, translators and shop assistants are all under threat from the rise of the robots, but at least the lawyers are doomed too.” Over two years ago another commentator (Bechor from LawGeex) was quoted as saying “There’s a romantic notion of AI being able to replace all lawyers” but as adding that “I don’t see that as something that will happen in the next couple of years” (so we are presumably safe for the moment) – in Dan Mangan, CNBC, 17 February 2017 “Lawyers could be the next profession to be replaced by computers” <https://www.cnbc.com/2017/02/17/lawyers-could-be-replaced-by-artificial-intelligence.html>.

<sup>3</sup> See for example the projects described in the Community Lawyer blog at <https://community.lawyer.blog>.

juries in court cases (where it will also supposedly be just as good as humans at detecting signs of lying, and at working out the relevant law). I have not yet seen an article claiming that robots will soon be drafting our laws<sup>4</sup>, but there is a cottage industry turning out these stories and that idea will surely crop up at some point. Those claims are entertaining, but I am not suggesting that drafting is going to be automated or that we are all going to be made redundant.

Nor do I seek to sell, or rally against, any vision of a brave new dawn of legal technology. Instead I would urge legislative counsel to engage with IT and policy people who are working on new ways of applying technology to legislation, to see what it might mean for us and how we might contribute. That engagement might involve helping our IT counter-parts develop something useful, or trying to stop them breaking the elements that work, or some combination of the two, depending on each drafter's perspective. If legislative counsel do engage in the current exploration of the possibilities of "machine-consumable legislation" then we can look to help the digital innovators to understand statutes (and constitutions and case-law) and legislative drafting, instead of watching them head off down dead-ends. We can also see if we can draft in ways that are more IT-friendly without sacrificing human readability and legal effectiveness (while continuing to fend off accusations that we deliberately translate good policy into convoluted loophole-filled legalese).

### **What is machine-consumable (or even machine-executable) legislation?**

What do people mean by the shorthand "rules as code" or "machine-consumable legislation/rules"? One way to describe it is in terms of trying to combine, and move further than, two things that are already relatively well developed –

- software that embodies legislated rules, via human translation of law into code, and
- methods of marking up legislation to enable computers to distinguish its parts.

### ***Beyond programs that embody legislated rules***

Computer programs already embody some of the rules that we have embodied in the legislation that we draft.<sup>5</sup>

- Nobody imagines that Social Security and Tax Departments still employ clerks looking up all the rules for each application and doing all the calculations manually. Obviously, governments develop or buy software to process claims and pay cheques

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<sup>4</sup> But Lisbon University's Instituto de Ciências Jurídico-Políticas recently held a conference entitled "Do androids dream of legislative drafting? - The use of AI and new technologies in legal drafting", with one contribution titled as "Is Artificial Intelligence up to the Task of Legislative Drafting?" - see <https://www.icjp.pt/conferencias/18771/programa>.

<sup>5</sup> The history of attempts to render statutes in computable form goes back to Layman Allen's 1978 paper "Normalized Legal Drafting and the Query Method" (<https://repository.law.umich.edu/articles/29>). The idea resurfaced in a 1986 paper "The British Nationality Act as a logic program", which spawned several follow-ups (<http://opim.wharton.upenn.edu/~sok/papers/s/p370-sergot.pdf>).

- or print demands, with humans making the necessary decisions at the appropriate points; but all the automatable aspects are handled by the computer systems.
- Equally for several decades there has been commercial software available to lawyers, advice agencies and the public that calculates tax and social security liabilities and entitlements.
  - Lastly there are programs used by businesses to automate their internal rules about their procedures, including their compliance with legislative rules (and with codes of practice or guidance from regulators).

But these programs are not made publicly available in the way the legislation itself is. Nor are they endorsed by Parliaments or governments (apart from those for their own use). They are all made by re-inventing the wheel independently each time, with the risk of creating new translation mistakes, or of perpetuating existing mistakes if elements are copied.

All these programs must contain coded versions of the rules that are set by the relevant legislation. So, as well as any coded instructions about how to present information on screen or print a cheque or who can enter what data, the program must include, at some point and in some form, a translation into a computer language of the rules that are expressed in the legislation in English or another natural language. For example where the legislation says “A taxpayer whose taxable income exceeds £10,000 must pay income tax at the rate of 20% of the excess” or “A claimant whose relevant income is less than £10,000 is entitled to a full rebate of the court fee”, somewhere among the lines of code in the software program must be lines that express that rule in a computer language. There are of course many computer languages, including programming languages such as Python and Java, and “mark up” languages such as HTML and XML, which operate at different levels between the humans and the machines (with “binary” coding, a series of zeros and ones, at the machine end). But these rules can be translated out of English into those languages in a way that is similar to translating into another natural language (and even with natural languages, useful translation between them is rarely a simple “literal” translation word for word).

Similarly when drafting we sometimes use a mathematical formula expressed in the “language” of maths, and sometimes we write that formula out in narrative English instead, but they mean the same thing. So “the standard benefit reduced by a quarter of the excess of the income over ten thousand pounds” means the same as “ $S - 0.25(I - 10,000)$ , where  $S$  = standard benefit, and  $I$  = income [and  $I$  is treated as 10,000, if  $I < 10,000$ ]”. In the same way, a computer language can express this sort of rule in lines of code that a computer can understand. That applies even where there is no mathematical or obviously computational aspect.

Later in this article I use the example of an enacted rule that a regulator may register a person if the person complies with requirements specified by the rule.<sup>6</sup> Computers and their

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<sup>6</sup> Jason Morris, “‘Rules as Code’ Can and Should be done without Programmers” Medium, 5 June 2019, uses an example, taken from Canadian mental health legislation, that a physician may issue an admission

languages are well suited to capturing rules that operate through logical structures such as these (computers typically render them as something like “IF this AND that, THEN these, ELSE those”). When I refer in this article to a “coded” version of a rule, this is what I mean, rather than a fully-fledged program that might use those coded rules to implement the legislation in some way. The limiting factor with the coded versions of rules in software run by government departments, or sold by businesses, is that they are not made publicly available by governments or given any official status (and so are not checked against each other even when they have been written to enable processing that uses the same legislation).

***Beyond mark-up of legislation for publishing purposes (and for identification of parts)***

Equally we have been publishing our legislation on the web for years now, with free access for the public (including software developers). Our IT departments long ago worked out how to take documents produced by word processors and turn them into pdfs or html.

More recently we have seen coding used for a “naming of parts” approach. That involves coding that marks up the document itself as being a Bill (draft 5, as introduced, as amended in Committee, etc), or as an Act (as enacted, or an Act as amended up to a certain date), or as Regulations or an Order, and so on.

But it has also been extended to marking up the Act to identify blocks of text by their numbering - “this is sub-paragraph (a) of paragraph (2) of section 3”, “that is paragraph 3 of Schedule 5” and so on.

That can be just about facilitating searches – making the text “machine-readable” in that sense. But it can also be used to help automate recycling the text through successive incarnations of the instrument.

It can be developed further to automate the consolidating of amendments. Then a computer program can identify what to do when faced with “in Article 3(1)(a) of the XYZ Order, for ‘dog’ there is substituted ‘cat’ in each place where it occurs”, and can do so in versions as from the relevant commencement date.

For some time now governments, particularly the UK (also Wales), have been making progress on this. They now publish not only the English (and Welsh) text of their legislation in human-readable form on the web<sup>7</sup>, but also a “marked up” version (usually in “XML”)

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certificate if four conditions are met - he then captures that rule in a coded form that can be used by a computer program - [https://medium.com/@jason\\_90344/rules-as-code-can-and-should-be-done-without-programmers-fb3e0f4dafa5](https://medium.com/@jason_90344/rules-as-code-can-and-should-be-done-without-programmers-fb3e0f4dafa5)

<sup>7</sup> At <http://www.legislation.gov.uk>. This is merely the text of the legislation, as is published by other jurisdictions.

that is machine-readable<sup>8</sup> and is offered to non-government developers and others who might want to reuse the text of the legislation in different ways. The UK make their XML versions accessible to external computers via an Application Programming Interface (“API”),<sup>9</sup> which is a means of enabling other programs to interact with the API to obtain the current coded forms of the legislation for use within those programs. But, given that these marked up versions of the legislation are only machine-readable, rather than machine-consumable, the uses to which they can be put are limited, such as to provide searches or to include up-to-date legislative provisions on a relevant website. These are uses that merely find and reproduce the English text, possibly with notes as to its status, rather than uses that involve a computer processing the rules<sup>10</sup> that are contained in the legislation.

**“Machine-consumable legislation” or “Rules as Code” - beyond “publish and translate”**

What is new in the idea of machine-consumable legislation, or “Rules as Code”, is effectively that these two elements will be combined and taken further. The idea is that –

- the legislation already comes with a coded version (of the relevant parts) before it is enacted;
- the coding is developed with the policy official and the drafter to reduce translation errors; and
- the coded version captures the relevant rules embodied in that legislation (just as proprietary benefits or tax programs capture the rule elements of their legislation), rather than just capturing the name and status of each of its parts (like the publicly available XML versions).

The coding for each new enactment would be –

- a single ready-made version;
- endorsed in some way (I will come back to this); and
- made publicly available.

The coded version will not be an end-user program itself, but nor will it just be the legislation marked up for its parts. The coded version captures the meaning of the legislation that embodies that rule, rather than expanding on that meaning. The coded version transposes the meaning of the relevant parts of the legislative text into a digital format, rather than just recording the name and status of each legislative provision. Capturing the

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<sup>8</sup> Contrast the XML version of Canada’s Access to Information Act at <https://laws-lois.justice.gc.ca/eng/XML/A-1.xml> with its pdf version of that Act at <https://laws-lois.justice.gc.ca/PDF/A-1.pdf>.

<sup>9</sup> The UK offers its XML versions at <https://data.gov.uk/dataset/a2416481-271a-42b2-ace8-fc247dd251be/legislation-api> and <http://www.legislation.gov.uk/developer>. Wales does the same at <http://legislation-data.assembly.wales/api/v1/>. See below at p. 10 on future use of APIs.

<sup>10</sup> Contrast the New Zealand site at <http://nz.openfisca.org> which hosts their attempts so far to capture the rules.

meaning is about capturing that the text says “If A and B, then P must do C”, as opposed to merely capturing that it is paragraph (1) of section 50 of the legislation as amended at a particular date. The coded version will be a coded representation of the actual rules in the legislation, written in a computer language, so that computers can read it and then use it to carry out programs. Those programs could be for various purposes. In the case of benefits legislation, for example, the program could be to process and pay benefit claims, or to advise lawyers or potential claimants about entitlement to those benefits, or to model the economic effects of increasing or reducing those benefits.

A major feature of the “rules as code” approach is that the coded version will have been created alongside the legislative text, minimising the “translation” errors that bedevil digital implementation currently.<sup>11</sup> Currently a Parliament might enact our draft of a law dealing with types of businesses that are overseen by an independent regulator where there are several processes involved that are likely to be computerised (such as applying for registration, sending annual returns, or complying with anti-money-laundering obligations). We then hope that the Parliamentarians understand and intend what we and our instructing officers thought that legislation meant. But then the regulator will take its independent view of the meaning and have its own computer programs developed (to automate some of its processes), reflecting its (possibly faulty) understanding of the statutory rules. Meanwhile the businesses will have computerised some of their operations themselves (such as a bank automating its system for complying with money-laundering rules), and will take their own view of the meaning of the legislation before they work out how to code the changes into their systems. It is obvious that there is enormous scope for error in this process, quite apart from the duplication of effort and the lost economic performance of the businesses.<sup>12</sup>

The idea with “rules as code” is that the government would make its single coded version available via an API to the public, including developers, not just those in government. An API is a means by which external computers can call up the current version of the encoded rules (see above). It will mean that the developers, and their customers, will have the advantage of knowing that the encoding of the rules, on which their apps are based, is both endorsed and up to date. It is worth repeating that many governments already publish their legislation on an API in “naming of parts” versions, rather than in a coded version that captures the relevant rules - see above. But governments also use APIs to publish other

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<sup>11</sup> Legislative counsel are naturally interested in legislation, but the approach is also being considered in relation to the drafting of international trade agreements, particularly by Xalgorithms (<https://xalgorithms.org/>): see Craig Atkinson “Africa’s potential ‘born digital’ trade agreement”, *International Trade Forum*, 3 June 2019 at <http://www.tradeforum.org/news/Africas-potential-born-digital--trade-agreement/>.

<sup>12</sup> See illustrations of the “translation gap” in New Zealand’s Better Rules for Government Discovery Report from March 2018 at 11 (<https://www.digital.govt.nz/assets/Uploads/Better-Rules-for-Government-Discovery-Report.pdf>).



information. Jersey publishes its social security benefit rates on an API,<sup>13</sup> and many countries publish their official statistics that way.

The developers would use the coded versions to feed into their programs or “apps”, designed to perform tasks that are useful to governments, advisers, businesses or citizens. That could include a web questionnaire asking you the right questions to give you an answer as to whether you are eligible for something under the legislation as it has been amended to date (or to write you the cheque, in the case of a government program). Alternatively, the app could just produce a flow-chart tailored to your circumstances. In the field of “RegTech” (automating processes in businesses, particularly financial services), it could go further to prevent accounts being opened for persons subject to sanctions legislation, or to ensure that the correct reports are sent to the regulator at the right times (perhaps in return for lighter touch supervision).

Some governments’ internal software (incorporating coded versions of legislated rules) already automatically executes some processes, such as enabling you to enter your information on a government website which then automatically grants you a visa-waiver, or sends your bank the benefits money you are owed, or tells you how much tax to pay, all without any human intervention (until you need to appeal, or to contact the department about your odd circumstances). Obviously opening any of that up to external developers might sound like an open door for IT-savvy fraudsters, but some in the digital community believe they can protect against that.

The point is that the “rules as code” approach does not depend for its usefulness on being able to find entire processes that do not contain any element where there is a need to apply human discretion (and those behind it acknowledge the need to preserve human discretion in appropriate cases – see below). Instead it can be useful to automate the non-discretionary parts of a process, leaving the humans to make the discretionary decisions, the results of which they then feed back in to the computer for it to handle the next stages of the process if those stages are again non-discretionary. For example, in an imaginary statutory process –

- the computer could check that you have filled in all parts of the web-form, you have not said you live abroad or that your income is over the limit or that your claim dates from the wrong period (or whatever the simpler eligibility criteria might be);
- if those are all in order the computer could then pass to a human official the text from the form where you set out why you consider you are a fit and proper person (or whatever other discretionary criteria there may be), so that the human can decide either “yes” or “no” on that issue;

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<sup>13</sup> See <https://opendata.gov.je/dataset/social-security-benefit-rates/resource/8c24ef3a-b9d7-4d4c-a788-96d876fe5c2c>.

- the official could then input that result back into the computer, which then generates either the cheque for the current amount (for a “yes”) or the refusal letter explaining the right of appeal (for a “no”).

In that way the coded version of the statute only attempts to capture the non-discretionary rules, and leaves the discretionary part to a human, and then requires input from the human to start up again with the relevant non-discretionary process – often referred to as “automating the boring bits”.

The “rules as code” approach applies to new legislation, which is the point of interest for legislative counsel. It leaves aside for now the question of when, if ever, artificial intelligence will enable programs to read all of the existing legislation (in all its historical glory) and work out how to represent reliably in code the rules that are embodied in that legislation. Without waiting for that day, the idea is that each new piece of legislation could be accompanied by coded versions of the relevant parts, created using human rather than artificial intelligence, and produced at the same time as the legislative draft.

Then there would be a separate question of whether it is worth setting humans to go back over the old legislation to produce coded versions, or whether that should wait for AI to be capable of that task. There is also a separate issue about whether progress in this field is only useful as a stepping stone towards an ultimate goal of encoding all of the law, so as to be able to give confident answers to open questions about a person’s legal position, or whether it is useful in itself to have an encoded version of the relevant rules in a single piece of legislation, or set of enactments, so as just to be able to answer narrower questions about what this legislation does for that person. Those involved in “rules as code” tend to take a practical approach of trying what can be done now, and seeing how that turns out, before deciding what to try next, so that these longer term questions do not necessarily amount to an obstacle to producing something less ambitious but still useful.

### ***Policy rules as code***

The apps that rely on the current coded versions of the rules, made available through the API, could facilitate people’s use of the law as it stands. But the coding would also facilitate people investigating possibilities for improvement in the enacted legislation, and then lobbying for those changes, by allowing developers to use the API to create apps that enable people to test out the effects of tweaking a rule this way or that.

But that principle can also be applied further back in the process, to consultation on drafts. The consultation draft would be issued with the coded version via the API, and the public could then use apps that illustrate the effects of the draft. The consultees could also play with apps that allow them to produce a tweaked version of the code, with illustrations of its effects, to argue for a change in the policy.

This approach can also go even further back than that. Current thinking has moved away from “legislation as code” to “policy rules as code”. The idea is that what is being encoded is not so much the enacted legislation itself as the rules that the policy staff develop and that we then embody in the legislation. That process could start before those staff even come to the drafter, so that the drafter would receive the instructions in the traditional way in a natural language, but also the accompanying code (with flow-charts and examples generated from the code).

Alternatively, the coding could take place (or be refined) at the same time as the drafting (and it is worth bearing in mind that sometimes the reason for time pressures on drafters is because of the time that has to be allowed for encoding after enactment). That is sometimes referred to as co-drafting, where the legislative drafter is drafting the legislation at the same time as the coder is drafting the coded version to express the same policy rules in a computer language alongside the natural language (in a manner similar to, but not identical with, the way that legislation is co-drafted in two or more natural languages in Canada, Wales and the EU). Either way the instructing officer and drafter would then use the coding (with or without a specialist coder – see below) as an aid to ensure that they are both on the same page. As the drafter produces drafts and questions the instructions, the instructing officer has to develop and refine the policy in the usual manner, but that is accompanied by refinements to the coding. Given that both drafters and coders face the same problem of pinning down grand policy statements into implementable detail, we could benefit by analysing the policy instructions alongside each other (depending when a separate coder is involved – see below). Similarly the coded version can be updated for amendments during the Parliamentary process, with politicians able to see illustrations that supplement the traditional Explanatory Notes and departmental policy reports, but also enable them to see the effects of possible amendments.

### ***Testing coded policy rules***

Our IT colleagues are keen on the idea that the approaches they take to testing software could then be taken to testing draft legislation. There is more work to be done here for coders and drafters to understand each other and to be sure that there are major benefits on this side.

From what I have seen so far, the benefits of testing would be more about the effects of the policy than about the legislation itself, and more where that policy was meant to have some economic effect. So with a tax or a social security benefit, where the policy department holds extensive data on citizens’ economic circumstances, the testing against that data could show how many more people would be entitled to a benefit, if its eligibility rules were altered in a particular way, and how much that would cost the government in total (or of course how much could be saved by targeted cuts). These sorts of economic models are run by governments already of course, so the advantage is just in certainty that that the new rule

has been correctly captured before it was fed in to the model, and that external agencies can be sure they are using the same version of the rule if they run their own checks.

In other cases it might be useful in complex tax and social security provisions where increasing the figure for an amount of a benefit, or for a threshold for an entitlement, might have a knock-on effect on other benefits or entitlements, which could be calculated mathematically. Alternatively, it might be linked to the idea of piloting new policies and legislation in limited areas before deciding whether to make them general. That would involve us having conversations with our digital colleagues about the parallels and differences in rolling out new software and rolling out new legislation.

But of more interest to us as legislative counsel would be a more basic form of testing, as a supplement to the common sense logic-checking that we already carry out mentally when we check the logical coherence of our successive drafts. More details about this were covered in the part of my presentation at the CALC Conference in Zambia that covered formal logic as a tool for drafters (which I hope to write up as a separate article for a later edition of the *Loophole*). The idea is that it could help us spot logical problems in our drafts. Those could be cases such as circularity in complex interlocking definitions. Other cases might be where we have inadvertently ended up prohibiting a particular type of body from doing something, but we have separately spent a great deal of ink on regulating how a set of bodies, including those of that type, should do that thing. In fact, if the policy officers are encoding their rules before they write their instructions, this sort of problem might be picked up even before we are involved. Also, when the policy has to change, in response to problems that the legislative counsel unearths, this sort of checking can be used to ensure proposed solutions do not cause problems elsewhere in the legislative scheme.

### **Feedback loops**

When the legislation is enacted, the coding would be published along with it.<sup>14</sup> But that is not the end of the story. Currently in government there are often teams who implement policy and legislation, but are separate from the teams who develop policy and draft the legislation. The implementation teams are often the first to have to attempt to produce software to deliver the intended result in practice. One of the ideas behind “rules as code” is that the implementation staff would have easier input into ensuring that practicalities are fully considered and that un-implementable policies are choked off before they could be enacted as legislation (at least where the law is to be implemented digitally to some degree).

As mentioned above, the digital community is keen on applying their culture of testing out versions of software. That testing can be before the software is released,<sup>15</sup> but also afterwards, including seeking feedback from its users, so that the feedback can be worked

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<sup>14</sup> See below at p. 29 for more on whether and how it could or should be made authoritative.

<sup>15</sup> See above at p. 11.

into rolling programmes of patches and upgrades. The implementation then loops back into the policy development in an ongoing virtuous circle of improvement.

Obviously both policy staff and legislative counsel have plenty to contribute to understanding how this approach might be adapted to the development and implementation of legislation. Again, we need to engage in conversations about how much read-across there is. There have been moves to encourage post-legislative scrutiny, sometimes coupled with a sunset clause so that the legislation expires unless it is positively approved to continue. But it is difficult to justify sending someone to prison on a pilot basis, and the legal system depends on respect for legal rules which can be undermined by presenting them as being merely test runs.

More generally, the idea is that having the code available via an API, along with facilities to try out tweaks before enacting them, will mean that the public can lobby more effectively for improvements. Having said that, the enthusiasm of some of those promoting digital modernisation can sometimes seem to lawyers to be based on a naïve view that the only problem in government is lack of public involvement, or that politicians will always welcome public lobbying. In reality we all need to appreciate that the public disagree on most political issues, that there are already well-organised lobby groups that disagree with each other, and that the most IT-savvy lobbies do not necessarily reflect the views of the public. It is of course a good thing to have people outside government more able to engage with policy formulation, as long as an IT solution is not seen as a magic cure-all that removes any need to assess who is engaging and who is being left out.

## **How might coding be brought into the drafting process**

### ***Coders v drafter-coders***

There is currently debate about how best to achieve the introduction of this coding element in practice.

- A specialist IT-qualified coder could become a second person involved in the policy development, and a third person in the drafting, along with the drafter and the instructing officer. That obviously means more expense in staff time, and possibly slower progress in coordinating three people, but it means the coding itself should be done properly.
- Drafters and policy staff could become expert enough in coding to be able to do the work that the coder would have done. Law schools and big commercial firms are training lawyers in coding. But it is a tall order to expect all drafters and policy staff to become proficient enough in all aspects of coding to do it themselves.
- An attractive third proposal is something in between – to have a program that is easy enough for drafters and policy staff to use without having coding expertise, but enables them to draw up rules in a way that generates the necessary code

automatically. Jason Morris, who has created Blawx<sup>16</sup> puts it in terms of needing to find an equivalent for lawyers of spreadsheets for accountants,<sup>17</sup> and argues that involving separate coding staff would hold us back.<sup>18</sup> The question would then be whether the coding would be fit for purpose without more, or whether it would make sense to have a coder come in to refine it at the end (or whether that would mean they might as well come in from the start - a similar issue to the familiar question of whether it makes sense for legislative counsel to look over secondary legislation written by non-drafters). Equally there is the question of whether there is a positive benefit in involving someone with a different perspective, from a background in computer science instead of policy or law, which would be lost if the drafter and policy official do their own coding.

### **Commercial and open-source approaches**

There are already commercial programs, such as Oracle Policy Automation,<sup>19</sup> that do just that. They are largely aimed at “business rules”, encoding and automating the internal policies and procedures of very large companies. But complying with legislation already forms part of those policies, so there is scope for adapting it to government policy rules that require legislation.

Another approach to computerising rules is “RegTech”. That grew out of “FinTech” (the development of technology for the financial services industry), and is largely concerned with producing programs for financial services firms. The idea is to capture everything from the legislation, to the regulator’s codes of practice, to the firms’ own business rules, and automate some of the work of a compliance officer. Again, some of this is about self-executing rules – particularly when it comes to what the firms have to report to the regulator, annually or *ad hoc*. As I understand it, the idea is that the software could generate management reports and send them to the managers of the firm, but also generate regulator reports and send them to the regulator, leaving the management confident that those aspects of compliance had been taken care of. The software could possibly also do things like

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<sup>16</sup> Below n. 29 and the accompanying text.

<sup>17</sup> See the Twitter thread at <https://twitter.com/RoundTableLaw/status/1077066650820665344>. by Jason Morris on 24 December 2018:

Can I tell you how the ‘should lawyers learn to code’ debate is going to end? Exactly the same way that the ‘should accountants learn to code’ debate ended. Someone developed a tool that was really useful, easy to learn, and didn’t ‘feel’ like coding. All the accountants learned it, and it became a basic tech competency in 20 years. No one thinks or cares about whether or not it is ‘coding’. (It is.) It is called an electronic spreadsheet, and is a domain specific declarative programming language for math. One day, lawyers, someone will offer you a tool that is powerful and easy. And you will love it. And you will want to learn and use it. And it will not be optional. And you will all be coders, and you will neither know it, nor care.

See also below at p. 20 for more on where this has led so far.

<sup>18</sup> See [https://medium.com/@jason\\_90344/rules-as-code-can-and-should-be-done-without-programmers-fb3e0f4dafa5](https://medium.com/@jason_90344/rules-as-code-can-and-should-be-done-without-programmers-fb3e0f4dafa5)

<sup>19</sup> See below at p. 16.

preventing employees from opening accounts for potential customers who were listed in legislation as being subject to asset-freezes, and so on.

But these two types of software are largely designed for use by the private sector rather than by government. More importantly, they are commercially sold or licensed software, rather than “open-source” software, and that difference is more significant in the view of many in the digital government community. Open source advocates argue that on the government side all the software should be open-source to aid transparency. I do not claim to understand the finer points of what does and does not count as open-source,<sup>20</sup> but it seems significant that those who have pushed furthest ahead on this so far, in NZ and NSW, are firmly convinced that this is the way to go.

### ***Current prototypes for rules as code***

This is still only an idea, and various people are working on it. Part of that work involves a search for an easy program to aid rule-developing. That means drafters without IT skills can give useful feedback on the ease of use of different prototypes.

- **New Zealand** - The New Zealand Government Digital Services have been working on “rules as code” for some time with their Parliamentary Counsel Office on board and the Inland Revenue Department.<sup>21</sup> They have set up a forum for people across the world to discuss it at <https://discuss.digital.govt.nz/> (do join in). One of their IT staff recently tweeted that he is aiming to produce something simple enough for a child to use.
- **New South Wales** - The work in New Zealand is being taken up by a digital team in New South Wales,<sup>22</sup> which has made contact with Office of Parliamentary Counsel there.
- **Australia** - Australia’s Commonwealth Parliamentary Counsel Office is now also involved with other national agencies in a working group that is starting to look at this field, and is likely to be helped by progress in New Zealand and New South Wales.
- **UK and related** - Various drafting offices in and around the UK have been looking into this. We are planning to have an introductory mini-conference and workshop in late June 2019 in London for drafters (and others) from UK central and devolved governments and from governments of Jersey, Guernsey and Isle of Man.
- **Global** - Meanwhile there are related developments in other jurisdictions, such as Canada and Singapore, which seem to indicate that this issue is likely to come to somewhere near you soon.

There are several IT products that are being investigated to see if they would be useful.

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<sup>20</sup> The Open Source Initiative offers explanations at <https://opensource.org/>.

<sup>21</sup> See <https://www.digital.govt.nz/dmsdocument/95-better-rules-for-government-discovery-report/html>

<sup>22</sup> <https://vimeo.com/329720314>.

- **OpenFisca**<sup>23</sup> is a French group focussed on coding legislation, which New Zealand<sup>24</sup> and New South Wales are both using.
- **DataLex**<sup>25</sup>, from AustLII, is a “rule-based inferencing platform”, which Jason Morris has used<sup>26</sup> to demonstrate how easy it can be for lawyers to encode simple statutory provisions. His demonstration also illustrates how that coding can be used by DataLex to produce a user-friendly “chatbot” that asks questions and produces a report on the legal position, with the user able to ask for explanations of each conclusion.
- **Oracle Policy Automation**<sup>27</sup> is a commercial tool to develop and implement business rules, including in the public sector. It is intended to be used by non-coders who write business rules, and it formats the natural English that they use in a way that is strikingly similar to how we paragraph our legislative drafts.<sup>28</sup>
- **Blawx**<sup>29</sup> is a drag-&-drop prototype by Jason Morris, a lawyer in private practice in Canada. It is based on the children’s programming tool Scratch (and its adult relative Blockly). He has posted demonstrations on YouTube<sup>30</sup> and you can try it out on the Blawx website. He reckons lawyers will not learn to code as such, but will find themselves learning to use niche software for lawyers, in the way that accountants learnt to use spreadsheets. This prototype is his attempt to demonstrate that idea - see below for an illustrated example of how it works (and then try it for yourself).
- **QnA Markup Editor**<sup>31</sup> is a simple, free tool to make web-based questionnaires, which can lead to answers to legal questions (or point up where more information is needed). The effect of making such a questionnaire is that it forces you to analyse the relevant rules.<sup>32</sup>
- **Xalgorithms**<sup>33</sup> are also involved in the New Zealand forum and active on Twitter. They are an open source project, based in Canada, using tables. They are mainly looking at coding international trade agreements, rather than legislation, but there is plenty of common ground. They also talk about an “internet of rules”<sup>34</sup>, like the “internet of things”.

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<sup>23</sup> <https://openfisca.org/en/> and <https://github.com/ServiceInnovationLab/openfisca-aotearoa>.

<sup>24</sup> See <https://www.digital.govt.nz/blog/turning-the-rules-of-government-into-code-using-openfisca>.

<sup>25</sup> See <http://austlii.community/foswiki/DataLex/WebHome>

<sup>26</sup> See Morris, above n. 6.

<sup>27</sup> See <https://www.oracle.com/applications/oracle-policy-automation/>.

<sup>28</sup> See example illustration below at p. 20, and the demonstration by Jason Morris at <https://www.youtube.com/watch?v=6K9Pg72vmyk>.

<sup>29</sup> See <https://www.blawx.com/>.

<sup>30</sup> See <https://www.youtube.com/watch?v=Jj6-KO-e7o&feature=youtu.be> and <https://www.youtube.com/channel/UCxebhipmS0zGhjN5NeRajFw>

<sup>31</sup> <https://www.qnamarkup.org>.

<sup>32</sup> See example illustration below at p. 37.

<sup>33</sup> See <https://xalgorithms.org/>.

<sup>34</sup> See <https://internetofrules.org/>.



- **Logiak**<sup>35</sup> is “a tool which allows users with no coding experience to create complex logic/rule-based systems, for example to create an app to assist in working out if a particular law or regulation applies in a certain situation”<sup>36</sup>. That should mean it could be useful for drafters and policy staff wanting to code rules. It recently expanded from healthcare into law, and was taken up by Slaughter and May’s legal tech innovation scheme.
- **Codex Stanford Worksheets**<sup>37</sup> – Stanford University works on “computational law” but has also produced “Worksheets” which create “active” forms, with “no traditional programming required”.

It may help to give some illustrative examples of how these programs might look when used to capture the policy rules that we embody in draft legislation. I will use an example of a typical simple legislative provision and the way it might look when transformed into rules in these programs.

Take the following as an example of the sort of legislative provision that contains a rule which can be translated into a computer language -

“The Regulator may register a person if -

(a) the person -

(i) is approved by the Regulator as fit to [XX], or

(ii) produces to the Regulator a registration certificate from an overseas regulator;  
and

(b) the person has paid the registration fee.”

For the sake of the example, we might reverse the initial expression and cast it as being about the person being eligible for registration (I appreciate that is not the same thing). This might then be abstracted as -

“A person is eligible [for registration] if -

(a) the person -

(i) is-approved, or

(ii) holds-a-foreign-certificate; and

(b) the person has-paid-the-fee.”

In the terms used by Blawx, that might be re-framed as -

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<sup>35</sup> <https://www.logiak.com/> and <https://www.artificiallawyer.com/2019/05/20/meet-logiak-the-no-code-decision-logic-platform/>

<sup>36</sup> <https://www.slaughterandmay.com/news-and-recent-work/news/slaughter-and-may-announces-collaborate-cohort/>

<sup>37</sup> <http://worksheets.stanford.edu/homepage/index.php>.

“It-is-true-that person has-attribute-of eligibility if -

(a) it-is-true-that -

(i) person has-attribute-of being-approved, or

(ii) person has-attribute-of being-foreign-certificated; and

(b) it-is-true-that person has-attribute-of having-paid-fee.”

To run a test we could take a company called “Myco”, to check whether it is eligible. In the first instance we could assume that it has not paid the fee, is not approved, but does hold a foreign certificate. When rendered in Blawx, this rule, and the test, would look like this -

The screenshot displays the BLAWX.COM web interface. On the left is a sidebar with a category tree: Categories, Known Categories, Objects, Known Objects, Known Attributes, Variables, Data Types, Values, Facts, Rules, Queries, and Logic. The main workspace is divided into two panels. The left panel shows a rule named 'is elig' with the following structure: 'We know' block containing 'A' is a Category 'person' and 'A' has attributes 'eligibility', 'approvedness', 'foreigncert', and 'paidfee', each with a 'True/False' dropdown. This is followed by an 'if' block with two paths: one for 'A' is in the Category 'person' and another for 'A' is approvedness is 'true' or 'A' is foreigncert is 'true' and 'A' is paidfee is 'true'. The right panel shows a test named 'myco' with 'We know' blocks for 'myco is an Object', 'myco is in the Category 'person'', 'myco's paidfee is false', 'myco's approvedness is false', and 'myco's foreigncert is true'. Below this is a 'Is it true that:' block with 'myco's eligibility is true'. A 'Run' button is visible, and the output shows 'No'.

The same rule can be rendered in QnA mark-up to produce an easy questionnaire, which illustrates that the answers are not limited to “yes” or “no”. In this case we could assume the fee has been paid, the company does not hold a foreign certificate, but we do not know whether it has been approved by the Regulator. When rendered in QnA, the rule, and this test, would look like this -

**QnA Markup Editor** BETA [Video Intro](#) [Syntax](#) | [Gallery](#) [GitHub](#)

Markup Style Load Template Load File New

Q(1): Has the person paid the fee?

A: Yes.

Q(1.1): Does the person have a foreign certificate?

A: Yes.

Q(1.1.1): Paid fee and has foreign cert. GOTO:Eligible

A: No.

Q(1.1.2): Has the Regulator approved the person as fit and proper.

A: Yes.

Q(1.1.2.1): Paid fee and has Regulator approval. GOTO:Eligible

A: No.

Q(1.1.2.2): Need either Regulator approval or a foreign certificate (not just fee). GOTO:Ineligible

A: Don't know

Q(1.1.2.3): Need to check that. GOTO:Check

A: Don't know

Q(1.1.3): Need to check that. GOTO:Check

A: No.

Q(1.2): Need to pay the fee. GOTO:Ineligible

A: Don't know

Q(1.3): Need to check that. GOTO:Check

Q(Check): Come back when checked

Q(Ineligible): Ineligible

Q(Eligible): Eligible

☒ word wrap | [report bug/issue](#) Update Outputs Save Markup to File

**Output** [Interactive](#)

Has the person paid the fee?

Yes.

Does the person have a foreign certificate?

No.

Has the Regulator approved the person as fit and proper.

Don't know

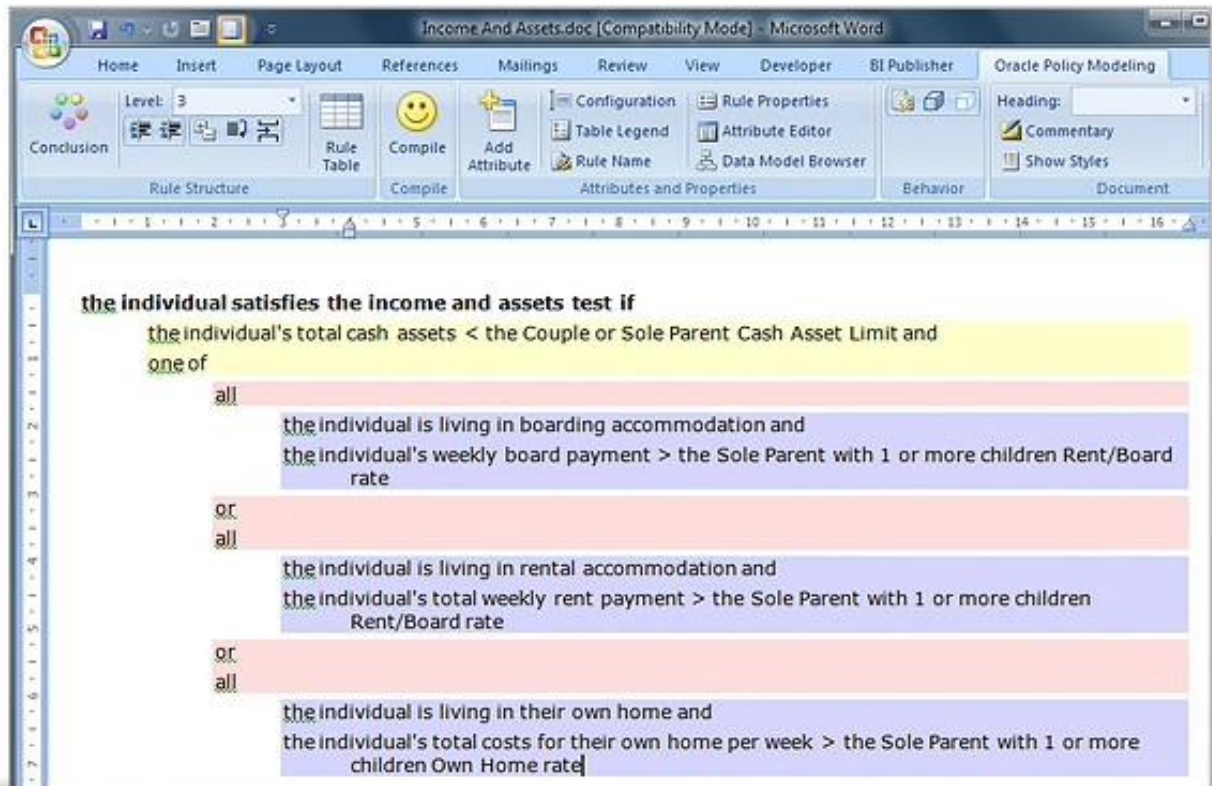
Need to check that.

Come back when checked

GO BACK ONE START OVER

With Oracle Policy Automation (a commercial service - see above), I have used a still from one of their promotional videos<sup>38</sup> as an illustration of how similar the structure of their rules looks to the way in which we structure our drafts. Again, the additional point to note is that a rule can be tested using the program. This illustration shows a rule for a test of income and assets -

<sup>38</sup> It is on the web at <http://www.oracle.com/us/assets/im08t0-154376-flat-opa3-1916290.jpg#slide2> and is part of their presentation at <https://www.oracle.com/applications/oracle-policy-automation/>.



These examples are merely to illustrate what has already been done towards producing programs that are relatively easy to use to turn rules into code. The point is just to show that there may be something to the idea, promoted by Jason Morris, that a rule-coding program could become as basic to the work of lawyers as a spreadsheet is to accountants.<sup>39</sup> The idea is not that drafting will be automated, any more than word-processors automate the writing of drafts. It is merely that we may find something that helps us to do our real work in a similar way to the way that word-processors enabled us to move paragraphs around and try out versions of a provision before settling on one. Equally, such a program might not do away with the need for a professional coder to be involved, but it might help the coder understand what the lawyer is trying to do (and the other way around).

### Digital-friendly drafting as merely updating policy approaches

We might also find that we are asked to draft in ways that are more “digital-friendly”. Digital-friendly drafting is partly not about the drafting at all, but about the policy, which should fit the modern digital world.

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<sup>39</sup> Above n. 17..

- We may all need a nudge to move beyond an ingrained tendency to assume processes are carried out on paper or face-to-face, in cases that can be done better digitally (already or in the foreseeable future).
- Sometimes that might be about the legislative counsel not lazily reaching for an old precedent from the purely paper era (and then resisting requests from the policy officer to update).
- But sometimes it will be about the instructing officers needing to modernise their approach (and ensure they are running their ideas by those who will have to implement them), with the legislative counsel merely remembering to query outdated looking instructions.

An example is testing motor vehicles for fitness - traditionally a paper certificate is issued, a disc must be displayed on the vehicle, and there are fees for replacement certificates. Now all that matters is that the IT system records the vehicle as having passed the test. The certificate then loses most of its significance, along with the question of who it should be given to (and there is no need for replacement). The display disc is unnecessary because police and traffic officers have roadside access to the IT system to check all registration numbers of passing vehicles. What matters in the drafting is then to ensure the different agencies have power to share the information among themselves (via the IT system).

It can also be a question of improving statutes that were brought in some time ago to deal with digital communication, notices, signatures, and so on, but are now looking out of date. Then there is the question of legislation to regulate or enable new digital developments. Again these are really policy questions, rather than issues needing a change of approach by legislative counsel. There is some talk of legislation being too slow, and of a need to future-proof legislation, but these issues occur in other fields too and there are already answers (or insurmountable problems). Future-proofing in particular is known to drafters as a misguided vague desire of some policy officials, whereas most policy staff can usually see that it would be best to enable actual decisions to be made about actual developments when they take shape, rather than trying to cater in advance. That is a slightly separate issue from the need to try to take a policy approach that is “technology neutral”, in not being tied unnecessarily to one current (or past) form of technology. That means the policy should preferably be cast in terms of the effect being considered rather than the technological route to that effect.

All of these are worthwhile but do not particularly challenge our general way of drafting, where our job is always to change the law to cater for some new policy approach.

### **What issues are raised for legislative counsel by machine-consumable legislation?**

In this section I look at what this might mean for our way of working as legislative counsel, particularly what opportunities and threats there might be, and what subjects might call for us to pitch in with our perspective.

### ***Do nothing or engage***

Starting with the question of whether these developments are going to affect the way we draft, there seem to be two broad approaches we could take, possibly not mutually exclusive.

- We might do nothing. The AI developers will continue working on how to extract digital rules from existing legislation (including the parts of that legislation that are very old), and will treat our new legislation in the same way - either they will or will not succeed in the reasonably near future. But this approach is likely to mean the field is dominated by those who think we are the problem, and that we should be edged out of the process in favour of AI programs that will write new legislation by understanding tweaks to rules and adapting existing legislative precedents.
- It looks likely that we may find the policy-makers become interested in using coding as an aid to developing policy, understanding existing law, and drawing up our instructions. We might then find that our instructions are accompanied by coded versions of the policy, which we are told must work under whatever we draft. That is where I am suggesting that we should be engaging with the digital and policy communities to ensure that this is not imposed on us in a way that does not work, but is instead developed by us jointly so that it works from both policy and legal perspectives.

There is a question of how far the new approach might be expected to distort normal drafting principles, how far actual drafts might change, and whether this the IT tail trying to wag the policy or legal dog. But it does not seem that way, in particular because, if it is the policy rules that are coded, then the drafts just need to tally with the code, not to be identical with it. That also means we can remain keen to avoid seeing human readability compromised for machine readability.

I turn next to some objections that legislative counsel are likely to raise to the prospect of machine-consumable legislation. Some were raised at the CALC conference, some after, and some are of my own imagining.

### ***Discretion***

The first reaction of a drafter is often to assume that this means automating the whole of the draft, and removing all human discretion. Although there are some proponents of AI who do advocate robot justice, they are not the people involved in “Rules as Code”. In all the relevant work so far there has been an acknowledgement that it would be a positively bad idea to remove human discretion from the law. Instead the idea is to automate what is computable (or “automate the boring stuff”), to help the humans focus on what they do best.

But it is a feature of our common law drafting tradition that when we give a discretion we want to be clear not just about who has it but also about what the results of the exercise of that discretion can be. That is compatible with a broad discretion, for which the classic

example is the discretion given to a jury. They are free to decide very much as they please, largely untroubled by the sorts of rules that apply to judicial or administrative decision-making, but in the end the result is still binary - they have to decide either “guilty” or “not guilty” (or whatever other verdict is open to them in that system). Equally a regulator may be given a broad discretion over whether to grant a licence, but can only grant it or refuse it, and we then make clear provision as to the consequences of each of those decisions. Even where there are more than two outcomes, we want to ensure we are clear as to what those are and what the effects then are. The extreme example the other way is a discretion given to a court to make “whatever order it sees fit”, with the consequences just being that whoever is ordered to do something must do it. But this is the exceptional case that still shows that we do expect the court to come to some decision, and we do expect any order to be directed at someone who has to comply.

So discretionary elements in our legislation tend to produce yes/no answers (or at least prescribed answers), which can often then be fed back into the computable parts of the legislation, rather than rendering digitisation hopeless. An effect on our drafting might be that we would want to ensure we are clearly separating the discretionary elements from the automatable elements, but that is not in itself a bad thing. It might aid the process if only parts of the legislation are to be coded, and if the starting point is going to be the easiest parts. But it might also help in identifying what must result from the exercise of the discretion, and how that in turn would be fed into the automated process as another of the inputs.

Having said that, we would need to be alert to misplaced assumptions by policy officers that digitisation means it is a good idea to remove or fence in discretion. That partly depends whether the discretion is present as a positive contribution or just as a second-rate proxy for being able to be more precise. In the latter case there is no problem with tying the discretion down, but in the former we would need to be sure the policy officer is not misunderstanding the point of the digitisation. We already give our instructing officers advice on the different ways discretions can operate and be structured, so this is not in principle anything new to us.

### ***Is law about rules in the first place?***

As far back as 1967 Ronald Dworkin laid the basis for many an undergraduate jurisprudence course by posing the question “Is law a system of rules?” and spending the next few decades arguing that it is not.<sup>40</sup> Legal positivists fought back, but Dworkin’s view chimes with many common lawyers, and even with many legislative drafters in common law jurisdictions. It was also back in the 1960s that the Law Commissions were set up in the UK with the ambition of codifying all of the law, a dream which fizzled out over the years and decades

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<sup>40</sup> R. Dworkin, “Is law a system of rules?” in *The Philosophy of Law*, R. Dworkin, ed. (Oxford University Press: Oxford, 1977), first published as part of “The Model of Rules,” (1967), 35 *University of Chicago Law Review* – 14 at 22ff. accessed at: <https://chicagounbound.uchicago.edu/ucirev/vol35/iss1/3/>



since, partly because of the difficulty but possibly partly also because of this sort of opposition.

This sounds like a more fundamental objection to the ideas behind “legislation as code”, which are often expressed in general terms as being based on the idea that all law is composed of rules. But even Dworkin is not arguing that there are no rules in the law, only that there are general principles that a judge applies to those rules (or to cases where there are no rules).

In the civil law tradition general principles are seen as products of the demands of logic, just another part of “legal science”, so that they can be treated just as a more loosely expressed and more readily defensible form of rule. But in the common law tradition we tend to see them as having a less specific character which makes them less likely to work as rules.

But, as with the previous point on discretion, this is possibly to misunderstand the extent of the ambition behind the idea of rules as code. It is relatively rare for us to be asked to embody Dworkinian principles in legislation, because they more usually form part of the common law (or of a codified constitution), rather than the fields into which the legislature normally to sends us. Regardless of whether you accept Dworkin’s view, it is obvious that principles play a similar part in equity, and it is obvious to any lawyer in the Commonwealth that there would be a contradiction inherent in the idea of attempting to codify equity. That explains why we are not generally asked to do it, but it also shows why it is not necessarily an objection to making computer code out of the rules that are present in our legislation. As with human discretion, it might turn out that we can do a worthwhile job by building the computable elements so that they lead up to, and then pick up again after, a point at which a human needs to apply general principles rather than rules.

There is still plenty of room for debate about whether the ultimate aim of rules as code should be to have a digital representation of the whole of the law, capable of answering any legal question (at least subject to points where the answer is “you will have to apply to a judge/regulator for the answer to that - feed in yes or no once you have that answer”). Much of the work is driven by a user-centred approach which makes people want to be able to answer the citizen’s question “What am I allowed to do here?”, rather than the lawyer’s more limited question “What effect does the XYZ Act and related legislation have on my client’s freedom to act here?”. That may lead some to see digitising the rules legislation as a first step to be followed by digitising the rules that are supposedly obtainable from case-law. It may or may not be a feasible and desirable goal to reach that point (and most Commonwealth drafters might assume trying to extract statute-like rules from case-law would be a lost cause).

But one of the beauties of the rules as code approach is that we do not all need to agree whether Eldorado is waiting for us in the far distance, as long as we agree that something useful could be waiting a little way down the path. So while those interested in AI and a logical representation of all of the law are working away at their dream, the rules as code



approach seems to be about drafters and coders working together on policies that need to be embodied in both legislation and coding, to see what progress can be made and what useful results obtained. That will be most useful when the major part of the legislation in a particular field, such as social security, tax or regulation of financial services, has been digitised. That might be a question of how much new legislation is enacted and then how much old legislation remains in a field, along with what are the incentives to go back over the old legislation to re-enact or codify it at the same time as co-drafting a digital version. Those incentives might come from the evident attractions of the parts of the field that have been coded, or they might be entirely separate (different jurisdictions decide to overhaul areas of law at different times, and Wales has recently decided to codify all of Welsh law). While the AI approach tends to be linked to a vision of a revolutionary and complete replacement of all of the law, the rules as code approach is more open to an evolutionary progression with priority focussed on areas where there is evidence of benefit that has been obtained and is likely to be obtained by taking the next step.

### **Poetry**

Another objection is that this focus on computerisation destroys the poetry of our work. Some of the sting should be taken out of this by the points made above about discretion and human input. When you currently draft legislation that will be implemented digitally, you can already be as poetic as you like, but somebody is producing code for it afterwards - rules as code is about producing the code at the same time, rather than the code dominating.

Equally some sting should be taken out by the points above about the coder and the legislative counsel both capturing the policy-maker's rules in their own medium, rather than the legislative counsel being given settled code and told to turn it into legislation (in the way that coders are currently given settled legislation and told to do their best). So we can still be poetic in producing elegant English formulations, just as the coder might find their code elegant.

In fact we probably need to step back and look through the policy officer's eyes - they may feel they had a poetically elegant statement of their grand sweeping policy ambitions for mother-hood and apple pie, but we then came along and started nit-picking with our insistence on coherence and legality and detail. The coder may find their code elegant and even poetic, just as the mathematician sees beauty in a formula. The policy official may think the drafters are just as odd as the coders in seeing themselves as poetic.

It seems likely we will find much common ground with coders if we draft our legislation while they are drafting the code. We will both be asking similar questions of the policy officials for most of the time, as we try to get to the bottom of exactly how they want their idea to work, and we may find we each ask relevant questions that the other had not thought of. The policy officials will then write their explanations, we will write our legislative drafts

and the coders will write their code. Perhaps we will all be pleased with how poetic, and accurate and coherent, we have been.

There is a separate debate to be had about standardisation. Some drafters feel we should be using the same wording for the same sorts of provision in every Act or Law, and some drafting offices prescribe use of precedents more or less stringently. Other drafters resist this on the basis that they are artists composing poetry which will be killed off by mass production techniques. My point would be that rules as code does not necessarily have anything to do with taking either of these positions.

***What lies behind the draft, and are some silences golden?***

That brings me to another objection - what about the silences? There are two main aspects to this - the silences where the missing information is just elsewhere, and the silences where there is nothing to fill the gap other than asking a court if the point was ever to be litigated.

In order to make our legislation easier for humans to read, we do not burden a particular Act or Law with repetition of the other parts of the statute book (or of the common law) that are essential to the operation of that Act or Law.

- We happily write “A person who contravenes paragraph (1) commits an offence and is liable to a fine of level 3”. That brevity might rely on a *Fines Act* that sets the amount for level 3, and an *Interpretation Act* that provides that the amount is to be read as a maximum (not a mandatory amount in all cases), and a *Sentencing Act* that provides for whether, when and how the fine can actually be imposed, and whether any alternative or supplementary penalties can be imposed. It also relies on our common law or statutes giving us the concept of a criminal offence, and its differences from other wrongs, and so on.
- Perhaps even more significantly for the rules as code project, we also happily write “The regulator must [/may] grant a licence if the conditions in paragraph (1) are met”. In that case we ignore our usual principle that we should say what happens if the regulator breaches that obligation (or say how the regulator should decide whether to exercise that discretion). That is because we know we can rely on the general principles of administrative law to fill in the large gap. In most Commonwealth countries those principles are in case-law that is constantly developing and principles that are constantly argued over,<sup>41</sup> rather than being set down in statutory form.

The encoded version of this particular Act or Law is not going to be able to contain all of these rules. For the offence, it might be desirable, and possibly even feasible, for the coding to refer to the coded versions of a set of criminal procedure statutes. But then again it might not be necessary - the citizen’s most pressing question might be just “How can I do this without committing a criminal offence?”, rather than “Am I liable to 10 or 7 years

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<sup>41</sup> See Criag Paragraph “Taxonomy and Public Law: A Response” [2019] *Public Law* 281, for a recent attack on a proposal to clarify thinking on public law by using a taxonomical division of the subject.

maximum in prison if I do this?” - and we might feel that answering the first question is a significant enough achievement without tackling the second. On the public law side, if we had to wait for all of administrative law to be codified and encoded before we could usefully encode any legislation that imposes duties, or confers powers, on public bodies then the project would grind to a halt (and it would be unfortunate to have started with tax and social security). As with the point about principles, we can start on the rules as code project without having to agree whether we are willing or able to encode all of administrative law, if we reasonably hope to obtain significant benefits before we reach the point of having to decide whether the longer term goal is achievable or even desirable.

There is a more difficult point about silences, which touches on what coders think of as “edge cases”. An example is work done in New South Wales on encoding a provision that said a grant was payable to parents of children aged four and a half to eighteen.<sup>42</sup> A human knows, with reasonable confidence, what we mean by a child being aged four and a half. But a computer needs to be told exactly what to do.

- The first point is that this does not mean when exactly 4.5 years have passed since the moment the child was born (and regardless of international time differences). Half of a year is 182.5 days (unless a leap year). So half of a year, measured from the child’s actual hour, minute and second of birth, would expire at a point 12 hours later in the relevant day (a child born at 07:00 on a given day, will have lived for exactly half a year at 19:00 on whatever is the day that is 182 days later).
- Humans know that we treat our birthdays as starting at midnight on the relevant day, regardless of what time of day we were born, and that we think a child born on 12th January is 6 months old on 12th July, regardless of the number of months in between that have 30 or 31 days, and regardless of whether February had 28 or 29. We are not disturbed by the idea that a child born on the 12th of a different month will be 6 months old on the 12th of the corresponding month despite the fact that a different number of days will probably have passed given the odd distribution of 30 and 31 day months.
- Legislative counsel are alive to the difference between measuring time in days (or weeks) which are of fixed lengths and months (or years) which are not, but it does not necessarily stop us using months and years with appropriate caution. We could spell out these principles in our grant legislation if we thought it was necessary, or it may be catered for in our *Interpretation Act* or our case-law,<sup>43</sup> but we also have to be allowed to leave some things to commonly understood meanings of expressions (given ultimately that is how all words work).

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<sup>42</sup> See TJ Harrop, “Computers don’t think like humans—here’s what that means for your policies, contracts, and laws” Medium, March 1, 2019, available at <https://medium.com/@tjharrop/computers-dont-think-like-humans-here-s-what-that-means-for-your-policies-contracts-and-laws-754b9106c15a>.

<sup>43</sup> See *PM v Childrens Court of the Australian Capital Territory* [2018] ACTSC 258 for an interesting case showing how the common law and the Australian Capital Territory *Legislation Act 2001* (and Gilbert and Sullivan’s “The Pirates of Penzance”) played out in a criminal case involving someone born on 29th February.

- But the coder still needs to tell the computer exactly what to do, or the computer will crash. So the coder does not have the luxury of being able to leave it out, and needs some formula to explain when the date is reached. Still, sometimes legislative counsel have to capture complex rules that other people think are simple, so we will not be surprised by that. The coder can legitimately ask the policy official whether it is really necessary to use this concept of being half a year old, despite its difficulties, just as we ask the same question when there are legal difficulties. But the coder will have to spell out the rule, if it is certain, just as we sometimes have to spell out an awkward rule.
- But then the coder complains that it is all very well saying days start at midnight and that you take the date with the same day number in the corresponding month, but what about the children born on the 31st of a month, or the 29th of February in a leap year (or the 29th, 30th or 31st, when the corresponding month is any February)? Again most of us, if there is no express legal provision, will be likely to say the corresponding date is the last day of the corresponding month (so a child born on 30th August would be 6 months old on 28th February in a non-leap year or 29th in a leap year, even though 30th is not the last day in August). But by this point we are probably less certain that we can say that is the effect of our draft if we do not make special provision. The coder's problem then is that the coding should not contain rules that are not present in the law (whether expressly in the legislation itself or implied into it by other legislation or by the common law). The difficulty is in reconciling that with the fact that the courts are available to rule on how (or whether) to fill in any gaps in the legislative text, but there is no direct equivalent for filling gaps in the coding.

At this point the policy officer probably threatens to go home. As legislative counsel we might well agree, and settle for not expressly catering for this edge case. It would depend on the circumstances, but where it is just about payment of a grant, rather than imposing a criminal liability, we and the policy officer are likely to be happy that nobody is going to be disproportionately inconvenienced by waiting a couple of days. To put that another way, we know that the courts can decide these points if they have to, so if it seems unlikely that anyone will ever find it worth going to court over it then there is no need to make disproportionate, distracting and confusing express provision for it and we can legitimately opt for silence instead. But the coder is still left asking what to write, given the computer cannot cope with silence, and we are still left with the broad working principle that the coder should not be putting in a rule that is not present in the legislation (though that in itself is shorthand that is difficult to unpack, depending on how you see the other legislation, case-law and interpretive principles that supplement the particular piece of legislation). I do not have a ready answer for this, but equally I cannot see it as fatal to the rules as code project, so I would think it is something we can discuss with our coder colleagues as we go along.

### **Authoritative code, or most-liked code**

One of the ongoing discussions is about what authority the coding could have, and what endorsement it could be given and how far it can be relied on (or who is or is not liable if the code is wrong). Again there is plenty of scope for drafters to contribute on understanding the legal position.

Coders naturally assume that “government legislation” means whatever the government says it means. We have a role in helping them to understand that it is the court, not the government (nor even the parliament), that gives definitive interpretations of what legislation means, whether parts of it are invalid, and how it interacts with the rest of the law.

In theory the legislature could enact the coded version as law, either on its own or alongside our draft. But then we would need to ensure there was clarity as to the relative authority of the coded version and the “natural language” legislative draft. If the natural language version has the authority, then the coded version is just an aid to construction of the natural language, so if they part company then the code will simply be wrong. Its status would be like the explanatory notes that many drafting offices produce, clearly flagged as not forming part of the legislation.

In theory a legislature could decide it wanted to give authoritative priority to the coded version, rather than the natural language version. But there is obviously a long way to go before we can expect all elected politicians (or even drafters and policy staff) to understand computer code (especially if they already complain of the difficulty of understanding our natural language drafts). In theory we could also follow the model of bilingual jurisdictions such as in Canada or Wales (or multilingual such as the EU), and give equal status to the coding and natural language versions. But (apart from the difficulty of expecting the legislature or the court to understand the coding) that option faces the difficulty that it is not as straightforward to compare coding and English as it is to compare English and French, and it is going to be much more likely that they will diverge in cases where it is not obvious which one is the mistake. So in practice the natural language legislation probably has to remain the enacted version with the force of law, while the coded version would be a supplement produced by the government.

What then would be the weight of the government’s endorsement of its coded version? We can explain to coders that civil law regimes work differently, and even the United States has the “Chevron” doctrine (requiring judicial deference towards the executive in the interpretation of legislation it administers, both primary and subsidiary).<sup>44</sup> We can then explain that generally in the Commonwealth tradition,<sup>45</sup> once primary or secondary

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<sup>44</sup> *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984),

<sup>45</sup> Not uniform across the Commonwealth - I have been pointed to the example of the Canadian Supreme Court in [McLean 2012 SCC 67](#) on “reasonableness review” of an agency’s interpretation of its “home

legislation is enacted, the government cannot guarantee it will mean what the government intended it to mean.

So then the issue is whether the government could and would back its coded version with some form of warranty or liability, paying damages to anyone suffering any loss from using it. That is obviously unlikely, and it might even put governments off the whole idea, unless they can legislate to remove all potential liability from themselves.

The “open-source” digital community might have a different approach. They may prefer not to rely on government endorsement. Instead government would publish the coding openly, but then allow people to produce altered versions freely (coders use a facility called GitHub, and refer to “forking”). There would need to be a clear distinction between versions marked as suggestions for changing the law, and other versions marked as suggestions for better encapsulating the existing law. Coders would develop apps that use the coded version of the legislation, and would then vote with their feet by using the version that they believe best encapsulates the existing law.

Of course this would need more thought on the question of how the coders reach a view on the interpretation of the law or policy rule, rather than just on the quality of the code, and on who might be held liable if a court decides the legislation means something incompatible with the coded version. If the various encoded versions remained accessible through a government API, it might be possible to enact a rule limiting or removing liability to users for any consequences of relying on the coded versions on the API. Even then it would also need some thought as to whether there could be a problem of bodies with financial or other interests manipulating the coded versions in their favour.

Turning back to the point about the courts, rather than governments, controlling the meaning of legislation, we also need to engage in more dialogue with coders about how that works. They tend to assume it is just a question of the court giving a new, clear definition of a term used in the legislation, which can then easily be tweaked into the coding. Of course the court might find the provision to be *ultra vires*, or might read in a “not” where none was drafted, or decide that the provision does not apply in a loosely specified class of cases where it would be objectionable on constitutional or human rights grounds. None of these is necessarily easy, or at least uncontroversial, to redraft or re-code (especially while the case is pending appeal, or when it should have been appealed but was not, and so on).

### ***“Ontologies” and interpretation provisions***

Coders complain, in tones of disbelief, that when we use the same term in different Acts, such as “child”, “income” or “New Zealand”, we sometimes use definitions that give the

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statutes”, and the cases discussed in Shaun Fluker, “The Great Divide on Standard of Review in Canadian Administrative Law” (July 23, 2018), ABlawg, [http://ablawg.ca/wp-content/uploads/2018/07/Blog\\_SF\\_CHRC\\_July2018.pdf](http://ablawg.ca/wp-content/uploads/2018/07/Blog_SF_CHRC_July2018.pdf).

terms substantively different scope. They look to set up a generalised “ontology” setting out the key objects and their relations to each other, and they then assume that ontology should apply across the statute book (or even across the statute books of separate jurisdictions). Part of the clash appears to stem from the relative ease with which coding makes up new terms, so that, where the XYZ Act needs to employ a non-standard version of “New Zealand” or “child” it may be natural for a coder to use a term to the effect of “New-Zealand-for-the-purposes-of-the-XYZ-Act” or “child-for-the-purposes-of-the-XYZ-Act” (which a computer will not then confuse with plain “New-Zealand” or “child” in other coded Acts). There is clearly a great deal of room for dialogue here, so that we each better understand each other’s thinking and the constraints we operate under.

From our perspective this must be an area where it is important for us to join in the conversation, rather than leaving the digital staff to make assumptions. We can introduce them to our principles of interpretation, to Interpretation Acts, to issues with standard provisions, to the obstacles that have prevented codification (in the Napoleonic sense) in the past, and to the good (or at least democratically legitimate) reasons why policy-makers have felt the need to insist on using the same word in a different context for a slightly different concept. We can explain the idea that each Act is its own world, in which the same word is to be read as having the same meaning, but that in another Act there is no reason to assume the meaning given by a different Act will apply. We can also explain that in the interests of human readers (who might never read other Acts) we use an interpretation provision in one Act to give shorthand expressions for concepts used in that Act, and that humans do not find made-up words easy, especially the sorts of compound hyphenated terms favoured by coders. Humans then find it easier to read “New Zealand” or “child” rather than seeing on every occasion the expression “New Zealand for the purposes of this Act”, “child for the purposes of this Act” or “person aged under 18, or aged under 21 and living with his or her parents” or whatever. It is also easier to ensure clarity of sentence structure when you can slot the single expression “child” into place instead of having to use a whole phrase.

But we also need to ask the coders to explain their idea of “ontologies” – listing out not only key players and items, but also the ways they can relate to each other. That should enrich our thinking about how we are using the concepts that we create in our drafts. It may also help us to understand more about their frustrations with current drafting practices.

Once drafters and coders understand more about what each of them is doing, we can discuss more sensibly whether it matters that “New Zealand” or “income” is defined differently in different Acts. In some cases there will be perfectly good policy reasons for the differences, and no realistic prospect that the same human will use both Acts and be confused between them. But in other cases there might not be good reasons. Even in those cases there might be political reasons, and the coders need to grapple with how to handle these.

Equally we should perhaps be taking the coders seriously in finding a way to make the relationships clearer between legitimate different uses of the same terms in different Acts.

That will take us back to old debates about the pros and cons of cross-references between Acts (“In this Act ‘child’ has the same meaning as in Completely-Unrelated Act, except that it does not include ...”), over-reliance on Interpretation Acts (“In this Act ‘child’ does not include ...” where what is does include is set out in the Interpretation Act that you have not even mentioned) and so on, but with a fresh new perspective from the coders.

## **Conclusion**

I hope that this paper has given an impression of where the movement for “Rules as Code” might be heading, and of how the input of drafters will be important in shaping it. The broad idea is that, in drafting new legislation to be amenable to digital implementation, it would be sensible to have the coding done alongside the drafting, with both coder and legislative counsel working together to tease the exact rules out of the policy official. That coding could be published freely and used to make programs that both help users navigate the law and enable interested parties to argue for changes. That exercise could produce useful results in itself, whether or not a whole field of legislation ends up being encoded, and whether or not any agreement is ever reached about whether it is possible or desirable to encode all of the law in a jurisdiction (or even internationally). People now expect there to be an app for anything significant to them, and they expect the app to work reliably. We may find that legislated rules that can be readily turned into apps are more popular than traditional legislation, and that the benefits might turn out to be a fresh driver for stalled rationalisation projects that we had given up on. Digital might not turn out to be the common law world’s Napoleon, but it could be a great tidy-upper.

This might sound like a looming disaster, a bright new dawn, or just something that legislative counsel should be aware of. But whichever of those might be the case, it seems that the work is moving ahead and drafters ought to become involved to ensure the best relevant outcome. If you are interested in learning the basics of coding, there are plenty of opportunities online, including free courses such as those from Codecademy, but there is no need to learn to code just to take part in these discussions. If you are interested in “rules as code” there are several steps you can take.

- You can join the discussion group <https://discuss.digital.govt.nz/>, try the Blawx prototype, and QnA, and follow up the other leads in this paper.
- You could talk about the idea to colleagues in your drafting office, and encourage your office to talk to your IT and policy departments about what your jurisdiction might do. A useful first step is to find out what APIs your government may already have created. You could also check whether you have a local branch of “Legal Hackers”, and see whether you could distract them away from AI and blockchain onto this.
- Twitter is a useful source of information on developments on this work, if you are prepared to sift through a lot else. You can use my Twitter account, @mattwadd, as a lead, but some accounts for projects mentioned in this paper include



- @BlawxAI,
- @InternetofRules,
- @OpenFisca,
- @CodeXStanford and
- @OracleOPA.

The two government digital agencies where the work has started are New Zealand @digital\_nsw and New South Wales @DigitalGovtNZ, but they deal with much else besides machine-consumable legislation.

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## Life at the Fringe: Brexit and Gibraltar

Paul Peralta<sup>1</sup>



### Abstract

*Brexit has been described as the most significant peacetime challenge that the United Kingdom has faced. This article considers its implications for Gibraltar, a very small British jurisdiction lying at the physical edge of the European continent. Brexit has been described as an existential economic threat for Gibraltar and the paper provides some context for this as well as drawing on parallels with recent history. It charts how events have been unfolding so far and concludes with observations that include both negative and positive outcomes.*

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## **Introduction**

Living in a small place can have a curious effect on your outlook. The sense that you get from being able to physically see the geographical limits of your environment can distort your perspective so that it is not uncommon for some to fall into the trap of thinking that they are at the centre of life.

This requires one to step back, and consider that actually, Gibraltar has had a long existence at the fringe.

Being at the fringe has benefits and drawbacks, as we shall see.

If we think about it, being at the fringe in Gibraltar is really nothing new. We now know that about 24,000 years ago some of the last of the Neanderthals lived in Gibraltar, which marked the southern fringe of their existence in Europe.

In antiquity, Gibraltar again comes to the fore as being at the fringes of civilisation. On this occasion it was as one of the fabled Pillars of Hercules.

It literally was at the end of the known world, “ne plus ultra” – there is nothing beyond, was the received wisdom.

Gibraltar was destined to remain unsettled until the Moorish invasion of the Iberian Peninsula in 711 AD. Although Gibraltar was the foothold and the toehold in the 800-year occupation, even then it remained at the margins. In the centuries that followed, the caliphates established themselves in Cordoba and Granada, not Gibraltar.

Fast forward to the eighteenth century to the British capture of Gibraltar in 1704 and once again, what we encounter is that Gibraltar was at the fringes of the much wider jockeying for position by the European States engaged in the war of the Spanish succession.

Being at the fringe may bring challenges but also opportunities. On the more positive side, the British conquest of Gibraltar coincided with the rise of British naval dominance and empire. This gave British Gibraltar a particular strategic and logistical legacy that survives until today.

It is worth bearing in mind that Gibraltar’s history is cast in terms of overcoming adversity. Over the centuries Gibraltar has been subjected to a number of military sieges. The Great Siege (June 1779-February 1783) being noted as the longest one endured by the British forces and one of the longest in history. Even more recently, WWII saw the evacuation of the entire civilian population for the entire duration of the war and beyond.

## **“Brexit 1.0”**

In the context of the opposing views as to whether Brexit is a positive or negative event, Gibraltar can draw certain parallels from its recent history.

In the post war years, Gibraltar's civilian population eventually returned and set about re-establishing an economy in the way that society and business does.

An important parallel is that at this time the Spanish economy was not in great health. The ravages of a civil war, followed by the position taken by Franco in WWII meant that it did not benefit from the Marshall Plan. Gibraltar therefore became the workplace for a significant number of persons. They would commute daily across the land frontier or even cross the Bay of Gibraltar by ferry. Economic prosperity spilled over into the neighbouring region.

In the ensuing years, 3 events are worthy of note -

- the official royal visit in 1954 of a young Queen Elizabeth;
- the 1967 referendum in which the population was asked whether they wished to remain British or pass on to the sovereignty of Spain;
- the conferral on 30 May 1969 of a new Constitution which established the House of Assembly (now Parliament).<sup>2</sup>

It is said that because of the Constitution, on 8 June 1969 Franco closed the land frontier with the following consequences:

- the Gibraltar economy was starved of labour;
- supplies of fresh food were severed;
- families settled on either side were torn apart;
- the cross-border workers were left without jobs;
- economic model became dependent on UK aid.

This is the hardest form of severance one can imagine, in today's language akin to the most extreme form of Brexit that one can design.

So what did that episode in history teach us?

From a social perspective, the first lesson is that the people came together. Reminiscent of the WWII generation, the oft referred to "Blitz spirit", it forged a much closer community.

Citizens began to identify even more with the United Kingdom as older citizens lost contacts across the border and the younger generation had no opportunity to forge their own.

From an economic perspective it is true to say that the challenge was overwhelming. At a practical level, cross-border activity evaporated overnight, and basics such as fresh produce, necessitated the establishment of new supply lines from Morocco. All other foodstuffs depended on long life products from further afield and transported to Gibraltar by sea. Financially these were very difficult times. Revenue was derived from a combination of military spending, direct aid and tourism.

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<sup>2</sup> *Gibraltar Constitution Order 1969*, S.I. 1969, II p.3602.

The labour issue also had to be addressed and the solution, once again, was to source this from Morocco.

You may ask why is this event relevant in a forward-looking discussion in 21<sup>st</sup> century Europe, but as the saying goes “you must know your past to know your future”.<sup>3</sup>

### ***Gibraltar and the European Economic Community.***

Gibraltar joined the European Economic Community on 1 January 1973 along with the United Kingdom.<sup>4</sup>

If evidence is required of existing in the fringe, you can probably do no better than the language deployed in Article 299(4) of the Treaty of the European Community (now Article 355(3) of the [Treaty on the Functioning of the European Union](#)) “the European Territory for whose external relations a Member State is responsible.”<sup>5</sup>

The terms of accession were designed to preserve Gibraltar’s status as a free port. The 1972 UK Act of Accession to the then European Economic Community (EEC) applied the EEC Treaties to Gibraltar, with the exception of the Customs Union, Common Commercial Policy, Common Agriculture Policy, Common Fisheries Policy and requirement to levy VAT. As will become apparent, these carve outs have had significant implications at the border.

### ***In 1986 the EEC admitted Spain and Portugal as members***

The accession of Spain to the EEC held all the possibilities for a resolution to what has been described as “the Gibraltar dispute”. As the Deputy Chief Minister put it recently -

... in retrospect, the United Kingdom committed a catastrophic error. The UK was in a position of strength. Margaret Thatcher had threatened to veto Spanish entry. London should have insisted that all restrictions against Gibraltar were lifted unconditionally as the price of Spanish entry. Spain should have been made to drop the sovereignty claim. Decolonisation could have been progressed.<sup>6</sup>

This failure has caused much damage at human, economic and political levels.

Fast forward to the end of the 20<sup>th</sup> century and we find that unfortunately not everyone has had Gibraltar’s best interests at heart. In 2000, Tony Blair’s Labour government had the

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<sup>3</sup> George Santayana, [Reason in Common Sense](#) (Dover Publications: New York, 1980) at 284.

<sup>4</sup> [European Communities Act 1972](#), c. 78 (UK).

<sup>5</sup> Signed at Lisbon on 13 December 2007.

<sup>6</sup> J. Garcia, “Gibraltar in the European Union: In and Out”, Gibraltar Chronicle, 29 June 2018, available at <http://chronicle.gi/2018/06/gibraltar-in-the-european-union-in-and-out/>

audacity to entertain joint sovereignty talks over the heads of the Gibraltarians. These got nowhere, but with every cloud there is a silver lining, with every setback an opportunity.

An historic second sovereignty referendum in 2002<sup>7</sup> put a nail in the coffin of the joint sovereignty proposals (98% against). In 2004 Spain elected a socialist government. Under this administration the trilateral forum for dialogue was created. For the first time the Government of Gibraltar agreed to participate in talks, on any matter, on the condition that nothing was agreed unless all three parties agreed<sup>8</sup>.

This process produced the Cordoba Agreement of 2006.<sup>9</sup> This agreement provided for the lifting of the restrictions on air and maritime operations as well as improved telecommunications. It also provided for a Basle style sharing of the air terminal.

The agreement did not succeed. Although the UK and Gibraltar adhered to the terms of the agreement, and made the necessary capital investments required, these had not been undertaken by the time the right-wing Popular Party (PP) came into power in 2011. The PP were opposed to the agreement.

### ***Understanding the referendum result: 96%***

It is a matter of record that Gibraltar was by far the most Eurocentric constituency according to the referendum result. Indeed, in the Gibraltar campaign all political parties, unions and representative organisations backed remain.

Gibraltar recorded the highest turnout of all the regions polled – at 83.5%. Of those that voted 19,322 voted to remain and 823<sup>10</sup> to leave. Remain won by a truly decisive 95.9%.

Statistically then, Gibraltarians were supposed to be almost unanimously in favour of the European project.

But it is worth reflecting on the adage: there are three kinds of lies: lies, damned lies and statistics.

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<sup>7</sup> The question put was-

On 12 July 2002 the Foreign Secretary, Jack Straw, in a formal statement in the House of Commons, said that after twelve months of negotiation the British Government and Spain are in broad agreement on many of the principles that should underpin a lasting settlement of Spain's sovereignty claim, which included the principle that Britain and Spain should share sovereignty over Gibraltar.

Do you approve of the principle that Britain and Spain should share sovereignty over Gibraltar?

See <http://www.gibnet.com/library/ref2.htm>

<sup>8</sup> European Union Committee, Brexit: Gibraltar, 13th Report of Session 2016-17 (1 March 2017), HL Paper 116. Available at <https://publications.parliament.uk/pa/ld201617/ldselect/ldcom/116/11607.htm>.

<sup>9</sup> BBC News, "Historic deal agreed on Gibraltar", 18 September 2006. Available at <http://news.bbc.co.uk/2/hi/europe/5355942.stm>. See also [http://www.gibnet.com/texts/trip\\_1.htm](http://www.gibnet.com/texts/trip_1.htm).

<sup>10</sup> BBC News, "EU Referendum: Who are the Gibraltar 823?", 24 June 2016. Available at <https://www.bbc.com/news/blogs-trending-36612989>.

The result must therefore be viewed in the proper context.

It may be the case that as a result of being physically a part of mainland Europe some voters may have felt the pull of European integration to be the solution to many of Europe's problems. But equally, we must remind ourselves, as the heading to this paper states, that we are at the fringe of Europe, not at its heart. In fact as the crow flies, Gibraltar, at 1,733km, is further from Brussels than Stockholm, Helsinki and Sofia and comparable with Bucharest.

To many, leaving the EU was interpreted as placing our current way of life in jeopardy. Indeed reflecting on the aftermath of the result, there was a concern that a hard Brexit could pose an existential threat to Gibraltar's economic model.<sup>11</sup>

The result of the vote is probably best interpreted in the light of the fear that by leaving the EU all the cards would be held by Spain. That, absent EU law and oversight of them by the EU institutions, in principle Spain could, should it wish to do so, go as far as closing the border, as Franco had done.

That vote, and the landslide result, probably had more to do with the pragmatism of preserving the status quo than any political conviction.

As the Chief Minister was to state in the context of the infamous Clause 24 included in the Council's negotiation guidelines: "This unnecessary, unjustified and unacceptable discriminatory proposed singling out of Gibraltar and its people was the predictable machination of Spain that the people of Gibraltar foresaw and one of the reasons why we voted so massively to remain in the EU."<sup>12</sup>

Unlike the matters that dominated the campaign in the UK, Gibraltar has been spared from the issues that arose due to the accession of the Eastern European States. The mass influx that saw net annual immigration quadruple between 1997 and 2010 to more than 2.2 million<sup>13</sup> did not resonate in Gibraltar. The other major issue, the money paid over to the EU by the UK had no particular relevance either.

In essence, it could be argued that the referendum campaigns in Gibraltar and in the UK had virtually no common ground and that explains the result.

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<sup>11</sup> *The Independent*, "Gibraltar faces 'existential threat' to its economy if there's a 'hard Brexit' deal, its chief minister warns", 20 August 2016. Available at <https://www.independent.co.uk/news/uk/gibraltar-existential-threat-economy-hard-brexit-deal-eu-fabian-picardo-a7201211.html>.

<sup>12</sup> HM Government of Gibraltar, Press Release, 31 March 2017. Available at <http://www.gibraltar.gov.gi/new/sites/default/files/press/2017/210-2017.pdf>.

<sup>13</sup> *The Guardian*, "How immigration came to haunt labour: the inside story", 24 March 2015. Available at <https://www.theguardian.com/news/2015/mar/24/how-immigration-came-to-haunt-labour-inside-story#img-1>.

## **Border questions**

### **Overview**

Before considering the issue further it may be useful to provide some context. What are Gibraltar's borders, and are there borders within borders?

#### **1. Sea**

Gibraltar is a peninsula projecting into the Strait of Gibraltar.

Under the UN Convention on the Law of the Sea only 3 nautical miles have been claimed as British Territorial Waters.<sup>14</sup> In the Bay of Gibraltar, delimitation is the median line between Gibraltar and Spain. To the south these could be extended beyond the 3 nautical miles until we reach the Moroccan / Spanish delineations. To the east, however these can be extended to the standard 12nm and there is also the possibility of asserting rights over the continental shelf and the European Economic Zone (EEZ) to the full 200 nautical miles, but this has not been done by the UK yet.

In Gibraltar the sea supports a wide range of activities. Other than the recreational aspects, there is a fully-fledged port. This supports the whole gamut of sea-related activities, from ship chandelling, ship repair, bunkering and passenger cruise liners.

Management of the waters around Gibraltar is therefore more than protecting a border; it goes directly into the economic fabric of Gibraltar plc.

#### **2. Air**

Gibraltar has an international airport which serves numerous airports in the UK and also Morocco. Flights to the UK are an important aspect of our connection with the UK. Flights to Morocco are of lesser economic importance at this juncture.

#### **3. Land**

Gibraltar has a land border with Spain. This is the main artery for labour, goods and tourism. There is a single entry for commercial vehicles and a separate one for pedestrian and other vehicles.

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<sup>14</sup> Article 2 states: "the sovereignty of a coastal State extends, beyond its land territory and internal waters ... to an adjacent belt of sea, described as the territorial sea". Available at [https://www.un.org/depts/los/convention\\_agreements/texts/unclos/UNCLOS-TOC.htm](https://www.un.org/depts/los/convention_agreements/texts/unclos/UNCLOS-TOC.htm).



## ***The issues concerning the borders***

### ***1. Maritime***

The basis of the problems surrounding the maritime border is the claim by the Spanish government that when Gibraltar was ceded under the Treaty of Utrecht only the port was included.<sup>15</sup>

By that reckoning Spanish waters lap onto Gibraltar's shores. You would need a passport to go for a swim!

Who, sitting around the table in 1713 could envisage the transformation of the port of Gibraltar to the current one?

This has played out in numerous ways over the years but to illustrate the issues this paper will focus on two: incursions into British Gibraltar Territorial Waters (BGTW) and the designation of waters under EU environmental law.

#### **A. Incursions into BGTW**

One of the more prominent ways in which border issues have come to the fore is in the incursion by Spanish state vessels asserting jurisdiction and/or control over vessels in BGTW. These have ranged from military ships exceeding the rights of innocent passage, state survey vessels operating in BGTW, and interference with shipping operations such as bunkering.

Gibraltar is probably the only EU jurisdiction where incursions from another Member State are serious enough to warrant diplomatic activity.

In 2014, the Europe Minister (Mr. Lidington) is reported to have said he had summoned the Spanish Ambassador because the actions of a Spanish vessel constituted "a breach of the UN Convention on the Law of the Sea" and that it represented a "cynical attempt by the Spanish government to disrupt Gibraltar's economy, in contravention of international law".<sup>16</sup>

And these are not isolated incidents that can be rationally explained by navigational error. As the media reported –

Data released by the Foreign Office in response to a parliamentary question show there were 602 incursions by Spanish state vessels in the 12 months to the end of February. ... This compares with 434 for the 12 months to October 2016 and 404 the previous year.<sup>17</sup>

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<sup>15</sup> [Treaty of Utrecht, 13 July 1713, article X](#): "The Catholic King does hereby, for himself, his heirs and successors, yield to the Crown of Great Britain the full and entire propriety of the town and castle of Gibraltar, together with the port, fortifications, and forts thereunto belonging..."

<sup>16</sup> BBC News, 17 July 2014. Available at <https://www.bbc.com/news/uk-28343172>.

<sup>17</sup> Daily Express, 1 April 2018. Available at <https://www.express.co.uk/news/politics/939818/brexit-news-illegal-intrusions-Spanish-ships-British-waters-Gibraltar-soars>.

The seriousness of these incidents cannot be underestimated. It goes beyond political statements and gestures. Vessels have collided and there is a real risk to life.

In certain Spanish quarters the attack on the Gibraltar bunkering industry was linked to the purported defence of EU environmental laws, but that was not sustained by the EU Commission after a formal complaint was dismissed.<sup>18</sup>

The UK's response to an incursion is to send a diplomatic protest note. However, in more serious instances the UK has summoned the Spanish Ambassador. As the House of Commons Foreign Affairs Committee reported:

The UK has summoned the Spanish Ambassador to the UK to the Foreign Office five times in the last two years to protest over Gibraltar issues. The FCO described such summonses as "a particularly serious and exceptional step to take".[105]We asked the Foreign Office for a list of ambassadors it had publicly summoned, and it was striking to find that a strong European and NATO ally should be in the same group as Syria, Iran and North Korea. Only Syria has been summoned more times than Spain, and no other EU state has been subject to this.<sup>19</sup>

The matter is a serious one. In May 2016 the press reported:

The Royal Navy has fired a warning shot at a Spanish patrol boat which sailed too close to a US nuclear-powered submarine as it sailed in waters off Gibraltar.

I am not sure, but outside the context of BGTW, when did the Royal Navy last fire against the Spanish?

I believe the answer is: 19 September 2018, when the press reported<sup>20</sup> that a flare had been fired as Guardia Civil got too close to HMS Talent, a British nuclear-powered submarine.

B: Designation of Special Area of Conservation (SAC)

In a more European / Brexit context we have the ongoing issue of the overlapping designation of BGTW as protected waters under the Habitats Directive<sup>21</sup> by both the UK and Spain.

The UK designated the site, at the insistence by the Commission, in consultation with Spain. The Commission did not seek the same from Spain when it came to designate the same area.

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<sup>18</sup> HM Government of Gibraltar Press Release, 25 July 2014. Available at <https://www.gibraltar.gov.gi/new/sites/default/files/press/2014/Press%20Releases/400.pdf>.

<sup>19</sup> House of Commons Foreign Affairs Committee, Gibraltar: Time to get off the fence, 2<sup>nd</sup> Report of Session 2014-15, HC 461. Available at <https://publications.parliament.uk/pa/cm201415/cmselect/cmfa/461/461.pdf>.

<sup>20</sup> *Gibraltar Chronicle*, "Navy fires flare as Guardia Civil get too close to submarine", 20 September 2018. Available at <http://chronicle.gi/2018/09/navy-fires-flare-as-guardia-civil-gets-too-close-to-submarine/>.

<sup>21</sup> Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20130701&qid=1559809150549&from=EN>.

The result was, and is, that two different sets of legal rules and norms are in theory applicable over the same space. Although the matter was litigated by the UK and Gibraltar governments these were lost on technical grounds.<sup>22</sup>

The Brexit implications:

Given that the EU Commission has not played with an even hand when it has come to sovereignty matters as regards Gibraltar's waters, the key issue relates to its position if Spain seeks to use the cover of the EU designation to pursue a campaign of harassment or intimidation.

There is no evidence that it will do so, but Brexit gives rise to such fears. These do not need to be of a significant order of magnitude for it to affect trade. Trade is risk averse and does not benefit from political disputes.

Membership of the EU, as we have seen, has not been an effective restraint to the actions that we have seen so far.

The possibility of legal challenge has probably tempered certain excesses but after Brexit it is likely that the possibility of seeking redress from the Court of Justice of the European Union (CJEU) will be curtailed. It remains to be seen how future excesses will play out and what avenues for redress remain.

## *2. Air*

The issues concerning the airport are acutely political. Clearly one cannot find succour in the Treaty of Utrecht for the premise that aviation activities were not permissible. Therefore, the premise for the current difficulties is that the airport is built on land that was not ceded under the Treaty of Utrecht.

In practice this has meant that Spain has taken the view that it will oppose measures that, in their view, implies their acceptance of British sovereignty over the isthmus.

It is worth reflecting, that in stark contrast to the position taken at the land border. Franco's regime did not suspend direct flights to Spain. These continued until 1979 – 5 years after the dictator's death when they were discontinued for commercial reasons.<sup>23</sup>

Despite Franco seemingly not having a problem, subsequent *democratic* governments have.

The accession of Spain to the EEC was considered to be the opportunity for a more pragmatic approach to the Gibraltar issue. However, in a matter of months after accession Spain flexed its muscle in a manner that took British diplomats by surprise. The EEC had

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<sup>22</sup> Gov.UK, News and communications, Written Ministerial Statement on Gibraltar, 18 July 2011. Available at <https://www.gov.uk/government/news/written-ministerial-statement-on-gibraltar>.

<sup>23</sup> House of Commons Select Committee on Foreign Affairs [Appendices to the Minutes of Evidence](#), 19 June 2002, Annex 13 (Brief on Gibraltar Airport). Available at <https://publications.parliament.uk/pa/cm200102/cmselect/cmfa/973/973ap34.htm>.

been working towards a package of liberalisation measures for that industry. Spain however took that opportunity to block the measures on the basis that the airport was constructed on illegally occupied land. Whilst the initial response was to defend Gibraltar, the u-turn was not long in coming. The u-turn came in the guise of the infamous 1987 Airport Agreement on joint use.<sup>24</sup> This agreement had been negotiated bi-laterally and was received with shock and disappointment by the people of Gibraltar. Although the agreement would never be implemented it sowed the seed of the “suspension clause” in EU laws:

2. Application of this Regulation to Gibraltar airport is understood to be without prejudice to the respective legal positions of the Kingdom of Spain and the United Kingdom with regard to the dispute over sovereignty over the territory in which the airport is situated.

3. **Application of this Regulation to Gibraltar airport shall be suspended** until the arrangements in the Joint Declaration made by the Foreign Ministers of the Kingdom of Spain and the United Kingdom on 2 December 1987 enter into operation. The Governments of Spain and the United Kingdom will inform the Council of such date of entry into operation.<sup>25</sup>

The position was cast for the immoral position whereby the application of EU law was suspended without the consent of the people most affected.

Economic development was hampered by Spain. As the submission to the House of Commons Select Committee on Foreign Affairs shows-

2. A Portuguese airline, Aerocondor, filed an application in 2001 with the Portuguese Civil Aviation Authority to operate a Lisbon-Gibraltar service, and the airline was told that they were not being granted a licence because of Spanish pressure.

3. Crossair, a Swiss airline, was very interested in operating a service from Geneva or Basel to Gibraltar, and was progressing well towards this end, when the whole operation went dead. It is strongly suspected that Spanish pressure was brought to bear on the airline to "persuade" it to drop its application.

— There is strong suspicion, although there is no actual evidence, that airlines are practically blackmailed by Spain into dropping any interest they might have in

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<sup>24</sup> House of Commons Select Committee on Foreign Affairs, Fourth Report (8 June 1999), Appendix 2 (Joint Declaration on Airport of 2 December 1987). Available at <https://publications.parliament.uk/pa/cm199899/cmselect/cmfaaff/366/36616.htm>.

<sup>25</sup> Regulation (EC) No 261/2004 of the European Parliament and of the Council of 11 February 2004 establishing common rules on compensation and assistance to passengers in the event of denied boarding and of cancellation or long delay of flights, and repealing Regulation (EEC) No 295/91 (Text with EEA relevance).

Gibraltar operations through veiled threats that they will lose good slots at Spanish airports if they are supportive of Gibraltar in any way.<sup>26</sup>

In 2006 the so-called ‘Cordoba Agreement’<sup>27</sup> unlocked aviation in two respects. In the first instance it required the Spanish government to agree to the lifting of the suspension clause and not to seek to have it included in future measures. It also required that the Spanish government cease objecting to direct flights between Spain and Gibraltar.

Unfortunately, the government that entered into the agreement was replaced by a government that resiled from all aspects of the agreement.

At present the economic use of the airport is limited.

Given the freedom of movement provisions of EU nationals, there are no practical difficulties for those passengers when they are diverted to Spanish airports by bad weather. This is not the case for passengers requiring Schengen-visas. These are denied entry into Spain, even though they are only in transit. The airlines policy, when they are aware of the potential for flights to be diverted is to deny boarding until the weather or incident has cleared.

#### Brexit and the airport

It is hard to see how Gibraltar airport can expand its economic operations without Spanish agreement. The size and location make EU flights viable and only a limited African facing operation possible. Brexit may therefore imply the maintenance of the status quo rather than a retrograde step.

From the passengers’ perspective there is the issue of what travel requirements the EU will impose on UK visitors. If the EU requires visas of any description it could mean a return to flights having to divert to Morocco (instead of Spain) whenever the conditions in Gibraltar are adverse. This would be a big retrograde step and could ultimately affect the economic viability of certain routes.

#### *3. The land border.*

Running for all of 1,200 metres, the land border with Spain may be one of the smallest international frontiers, however the issues raised are inversely proportional to its size.

It is important to note that different legal regimes operate at this border.

At the basic level it is an international border between Gibraltar and Spain.

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<sup>26</sup> Select Committee on Foreign Affairs, [Appendices to the Minutes of Evidence](https://publications.parliament.uk/pa/cm200102/cmselect/cmfa/973/973ap34.htm), Annex 13, 5 November 2002. Available at <https://publications.parliament.uk/pa/cm200102/cmselect/cmfa/973/973ap34.htm>.

<sup>27</sup> Above n. 9.

At another level it is an internal EU border between 2 Member States where the principles of freedom of movement apply.

The border is also a Schengen border, so Schengen visa requiring nationals are not permitted to cross it without the appropriate authorisations.

Finally, it is also a border between the EU single market and, effectively, a 3<sup>rd</sup> country.

With so many levels at play you would think that friction would be inevitable. But Calais/Dover face the same issues with the exception that goods are in free circulation in either's market.

The decision taken on accession to keep Gibraltar as a free port and out of the common market in goods obliges Spain to protect the rest of the EU by taking proportionate steps to check that duty payable goods are not introduced illicitly.

In addition to checks on goods, Spain is required to ensure that persons entering the Schengen area have the appropriate authorisations.

Unfortunately, over the years these duties have not been much more than a fig leaf to cover what has, at times, been appalling behaviour.

These difficulties have been well documented over the years and has resulted in much political activity. This has included several visits to the border by EU Commission officials.

In 2000, in response to a European Parliamentary question, the Commission went on the record saying that it 'considers that the checks conducted at the border which lead to these delays could not be proportionate to the legal and practical objectives they are intended to pursue'."

This position did not endure. As the House of Commons Foreign Affairs Committee's Eleventh report for the session 2001-02 reflected:

114. In March 2002, however, the Commission announced that it was closing its investigation into the border restrictions. In a press release, it claimed to have "found no evidence to legally support claims that the checks carried out by the Spanish authorities on travellers and on goods carried by travellers at the crossing point La Linea are disproportionate and therefore incompatible with Community law".

115. We are frankly amazed that the Commission could find *no* evidence to give legal support to claims that the checks are disproportionate, especially in the light of its previous statement that they "could not be proportionate" and find that conclusion quite perverse.<sup>28</sup>

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<sup>28</sup> Select Committee on Foreign Affairs [Eleventh Report](https://publications.parliament.uk/pa/cm200102/cmselect/cmfaaff/973/97303.htm), 7 November 2002. Available at <https://publications.parliament.uk/pa/cm200102/cmselect/cmfaaff/973/97303.htm>.

Fast forward to the House of Commons Foreign Affairs Committee's second report of session 2014-15 aptly entitled "Gibraltar: Time to get off the fence"<sup>29</sup> it returned to the issue of border delays. Reflecting on one of the low points it stated:

In July and August 2013, Spain suddenly instigated rigorous border checks that resulted in motorists waiting up to seven hours to cross the border, as each car was thoroughly searched.

The 2013 border delays were a direct response to issues connected with the building of a reef in BGTW and the impact on rake fishing by some Spanish vessels. The incident saw the Spanish Ambassador being summoned, the Prime Minister calling his counterpart in Spain and the Prime Minister calling the President of the European Commission to request an urgent EU monitoring mission to inspect the border.

In due course the Commission did conduct visits however these always were undertaken with prior notification. As David Lidington, Minister for Europe reflected:

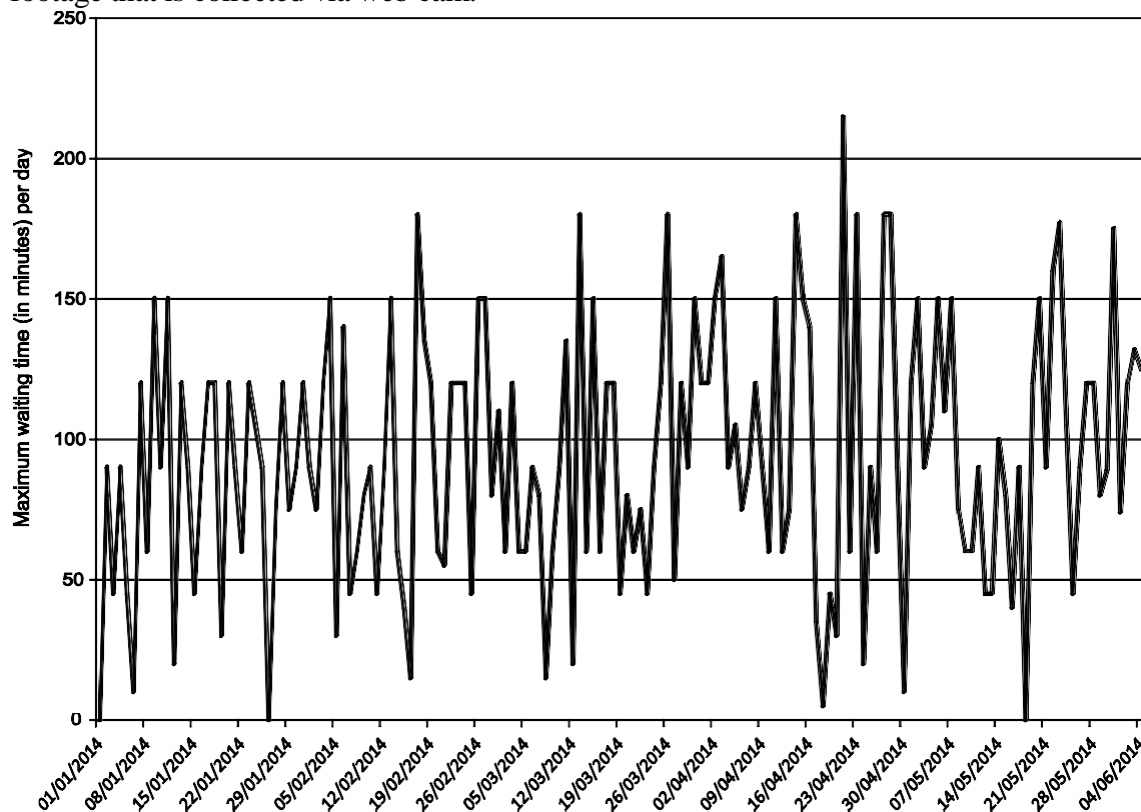
It is unsurprising that the Commission found insufficient evidence that Spain is breaking EU law, as the Spanish checks were significantly reduced during the Commission's visit. We remain confident that the Spanish government has acted—and continues to act—unlawfully, through introducing disproportionate and politically motivated checks at the Gibraltar-Spain border. And we will continue to provide evidence of that to the Commission.<sup>30</sup>

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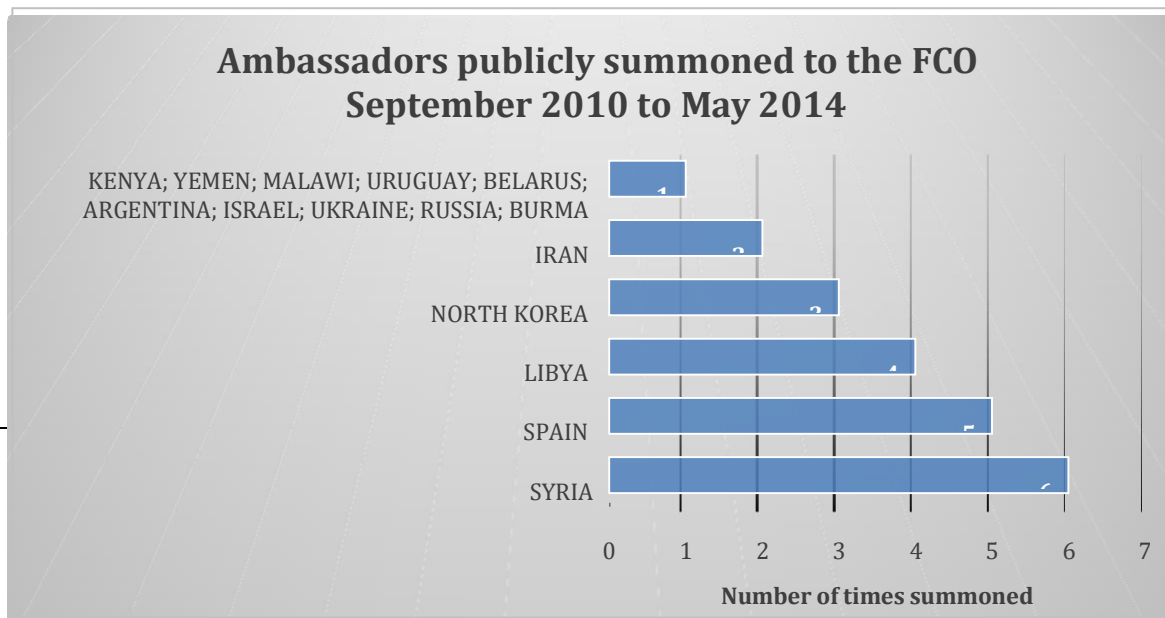
<sup>29</sup> Above n. 19.

<sup>30</sup> <https://www.gov.uk/government/news/uk-welcomes-commissions-statement-on-gibraltar-spain-border>.

The evidence spoken of is both in terms of logging movements (see graph below) and footage that is collected via web cam.<sup>31</sup>



The UK government has from time to time taken steps that are in its view robust. In particular the summoning of the Spanish ambassador is regarded as an exceptional measure. As the chart below shows only the Syrian ambassador was summoned more frequently than the Spanish one.





Source: House of Commons Foreign Affairs Committee's second report of session 2014-15 "Gibraltar: Time to get off the fence"<sup>32</sup>

The Chief Minister described the delays to be another example of what he termed "the use of the frontier as an abusive weapon against Gibraltar and its economy".

The land border is a good litmus test for day-to-day relations.

When politics go well, fluidity is improved. When it does not, it is usually the first place where it is reflected.

### **Brexit implications.**

The land border is the canal through which flow the waters that irrigate the socio-economic model Gibraltar currently enjoys.

What we know from bitter experience is that even with the benefit of EU membership, the border can and is used as a political tool.

What we also know is that there are political cycles. The trend is for a hard line when there is a right-wing government and a less hard line when there is a socialist one. With a socialist government currently in power, the prospects for lessening the impacts of Brexit are better.

There are a number of ways in which the border issue can be played out. In the early days of the open border, one way of getting to citizens was through the use of the immigration passport stamp. People would be turned away on the basis that the passport was full if there was a single stamp on each page, when actually each page could accommodate a dozen or so stamps.

Double filters have been deployed whereby the Civil Guard establish a second control at the exit of the border. These checked every vehicle and every person so that effectively the traffic backed up.

At an administrative level, former Foreign Minister Jose Manuel Garcia-Margallo said that Spain was considering introducing more formal restrictions, including a €50 fee to cross the border.

It should also be noted that there is already an occasion where the border was unilaterally closed by Spain whilst a member of the EU- and got away with it. In 2003, the Aurora, a

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<sup>32</sup> Above n. 19.

cruise liner, called into the Gibraltar port. Some passengers had been suffering from the norovirus but it was hard to see how that would require the border to be closed. The then Chief Minister summed it up: “I think if Spain were not claiming sovereignty of Gibraltar, the frontier would not be closed as a result of this incident.”<sup>33</sup>

Barring an all-out war or even trade sanctions (both of which would not be welcomed, likely, or even in the gift of the Government of Gibraltar) it has been demonstrated that diplomatic pressure has not been sufficient to stop Spanish excesses. Diplomatic pressure has not been seen to have achieved concrete results.

Potentially the bottom line is to what extent is Spain prepared to harm its own citizens? To what extent will it be prepared to jeopardise the lives of the 10,000+ frontier workers and the 25% of the GDP of the neighbouring area which Gibraltar is directly or indirectly responsible for?

With a socialist government in power in Spain, it may mean that a more favourable Brexit outcome is more possible now than may have been the case at the time the Article 50 notice was submitted.

#### **Clause 24 – “solidarity lever”**

At the time that CALC was having its conference in Australia the European Council drew up guidelines forming the framework for the withdrawal negotiations.

Those guidelines were adopted on 29 April and included a provision (the “solidarity lever”) that caused considerable concern.<sup>34</sup> The offending clause reads:

24. After the United Kingdom leaves the Union, no agreement between the EU and the United Kingdom may apply to the territory of Gibraltar without the agreement between the Kingdom of Spain and the United Kingdom.<sup>35</sup>

The effect of this clause is to give Spain a veto on how any agreement entered into by the UK and the EU will apply to Gibraltar.

In his budget address of 2017, the Chief Minister described clause 24 in the following terms:

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<sup>33</sup> BBC News, “Fury over Gibraltar border closure”, 3 November 2003. Available at <http://news.bbc.co.uk/2/hi/europe/3237235.stm>.

<sup>34</sup> *Gibraltar Chronicle*, “Clause 24 is ‘a solidarity lever’ for Spain, Barnier says”, 12 April 2018. Available at <http://chronicle.gi/2018/04/clause-24-is-a-solidarity-lever-for-spain-barnier-says/>.

<sup>35</sup> European Council guidelines following the United Kingdom's notification under Article 50 TEU. Available at <http://www.consilium.europa.eu/en/press/press-releases/2017/04/29/euco-brexit-guidelines/>.

The inclusion of that clause felt like a slap in the face of the smallest jurisdiction in the EU by the most powerful of institutions.<sup>36</sup>

Responding to Clause 24 the Deputy Chief Minister stated

The clear objective of Spanish policy, as shown by the EU negotiating guidelines, is to push Gibraltar to the sidelines and deal with it separately from U.K., so that Spain can continue to bully us, away from public view, at the end of the negotiations.<sup>37</sup>

Taking those comments into the perspective of this paper, clause 24 is about confirming that Gibraltar's place is not at the heart of the process but is at the fringe.

### **Concluding observations**

On the positive:

- (1) Gibraltar had a Brexit 1.0 and we can draw from those experiences.
- (2) The governments in London and Gibraltar have probably never worked as closely as in this period and the understanding of Gibraltar issues never penetrated as far.
- (3) Politically HMG has made public assurances to look after our interests.
- (4) There is a new socialist government in Spain and there was a public announcement by the Spanish premier that Spain was seeking a deal on Gibraltar by October.<sup>38</sup>

On the less positive:

- (1) We do not have the final agreement and at the same time that a positive outcome for Gibraltar was announced, the Checkers Plan was not well received at the Salzburg informal summit.
- (2) Clause 24 exists.
- (3) However it is cast, Brexit is not pain free.
- (4) Uncertainty as to potential to curb any Spanish action.

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<sup>36</sup> HM Government of Gibraltar, The Chief Minister's Budget Address, 2017. Available at <http://www.gibraltar.gov.gi/new/sites/default/files/press/2017/Topical%20Speeches/CHIEF%20MINISTERS%20BUDGET%20ADDRESS%202017%20with%20charts.pdf>

<sup>37</sup> HM Government of Gibraltar, The Deputy Chief Minister Press Release, 27 June 2017. Available at <http://www.gibraltar.gov.gi/new/sites/default/files/press/2017/Press%20Releases/412-2017.pdf>.

<sup>38</sup> *Gibraltar Chronicle*, "Spain seeks Brexit deal on Gibraltar by October, Sanchez says", 20 September 2018. Available at <http://chronicle.gi/2018/09/spain-seeks-brexit-deal-on-gibraltar-by-october-sanchez-says/>.

## Book Reviews

### *Understanding Legislation: A Practical Guide to Statutory Interpretation*

David Lowe & Charlie Potter, published by Hart Publishing: Oxford, 2018

**Reviewed by Dr. Duncan Berry<sup>1</sup>**

#### Introduction

Because so much law is embodied in legislation, it is imperative for not only lawyers, but also for many non-lawyers, to be able to access, read, understand and apply legislation. It is therefore useful to have a new book on the topic, which seeks to take a practical, accessible approach.

The authors have aimed their book at a varied audience comprising legal practitioners, students, academics and judges—whatever their level of experience. They accept that there are more comprehensive and detailed works on statutory interpretation,<sup>2</sup> but justify their book on the grounds that it is more concise and readable. While I would agree that the book is concise and readable in some respects, its structure could certainly be improved. As one example where the editorial sword should have been applied more vigorously, many (indeed most) of the footnotes are inordinately lengthy. This has resulted in some footnotes encroaching onto the page after the text to which they relate.<sup>3</sup> Indeed, many pages of the book consist predominately of footnotes. But very many of the footnotes provide a forum for discussion or at least worthwhile deliberation or consideration. Surely, discussions and explanations of points that the authors make should immediately follow the relevant text rather than being consigned to footnotes.<sup>4</sup> While footnotes do have their place, they should be limited to such matters as identifying cross-references to other parts of the text, references to decided cases, sections of statutes, clauses of subordinate legislation, and the like. I found this structural issue a most irritating distraction.

Another issue is that many of the numbered paragraphs are subdivided into numbered subparagraphs. However, the subparagraphs are ranged to the same margin as the

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<sup>1</sup> SJD, LL.M, MPP, GDCM; barrister; consultant parliamentary counsel. I wish to thank John Moloney for some pertinent observations on a draft of this review.

<sup>2</sup> For example, F. Bennion. *Statutory Interpretation*, 6th ed (2013); *Craies on Legislation*, 11th ed (2016); and R. Cross, *Statutory Interpretation*, 3rd ed (1995); *Maxwell on the Interpretation of Statutes*, 12th ed, P. St. J. Langan, Maxwell: London (1969); and R. Sullivan *Statutory Interpretation*, 3rd ed, Ottawa: Irwin Law (2016).

<sup>3</sup> For example, see footnote 35 on pages 65 and 66. Most of the footnote is on page 66 even though it relates to text on page 65. Furthermore, much of the content of the footnote is of sufficient importance to warrant being part of the substantive text to which it relates (see note 5 below). Other examples are to be found on pp. 79/80 (footnote 111); 83/84 (footnote 127); 88/89 (footnote 157); and 95/96 (footnote 16).

<sup>4</sup> Examples of instances in which the discussion of important substantive issues is relegated to footnotes are to be found throughout the book, but here are a few: pp. 64 (footnote 26); 66 (footnote 40); 57 (footnotes 50 and 51); 66 (footnote 40); 67 (footnotes 50 and 51); 73 (footnotes 81 and 85); 74 (81 and 85); 75 (footnote 93); 76 (footnotes 99 and 100); and 77 (footnote 101).

paragraphs.<sup>5</sup> I believe most readers would have been helped if those subparagraphs had been indented to the right, so indicating the appropriate hierarchy of the authors' ideas.

The authors also have a penchant for using Latin terms,<sup>6</sup> even though English equivalents are available. I question whether in the 21<sup>st</sup> century, there is any room for these “venerable relics” in texts on English law. As time goes by, more and more lawyers will have difficulty with these terms, bearing in mind that the teaching of Latin has all but disappeared from the English school curriculum.

I suggest that the authors could have made more use of the drafting guidance issued by the Office of Parliamentary Counsel and readily available on the [UK Office of Parliamentary Counsel website](#) in relation to current legislative drafting practices in the UK. For example, as I point out later in this review, the use of provisos in modern legislation is all but obsolete.

The purpose of this book is to act as a “practical guide” and provide an accessible point of reference and serve as an introduction to the key materials and concepts relating to statutory interpretation—both for legal practitioners and for students of the law in general. The authors admit their book is not intended as a substitute for more scholarly texts such as those previously referred to. The book does not set out to provide any historical analysis of statutory interpretation as an academic subject or provide detailed insight into the parliamentary and governmental processes that bring legislation into being. Still less do the authors seek to provide the same level of detailed discussion on the constant flow of judicial decisions that keeps the law in this area in flux. Rather, they claim that the book aims to provide a distillation of the basics as a ‘way in’ to the subject, which may be supplemented by the weight of learning which is to be found in more comprehensive volumes. The book succeeds in providing a valuable reference text for those in need of a ‘quick principle’ with an authority to support it, and a signpost to key cases they may need to consider.

The authors have done an excellent job in bringing together copious modern authorities in support of the various propositions outlined. It is a pity that discussion of these authorities is often relegated to footnotes, removed from the citation of the propositions to which they relate.

It should be emphasised that the book is directed at a British (or, more specifically, English) audience, which means that almost of all of the cases cited are decisions of British or EU courts. Similarly, the legislation cited is almost entirely that of the UK or the EU. Nevertheless, because decisions of British courts at least continue to influence decisions in

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<sup>5</sup> Examples are to be found on pp. 103, 104, 106, 107, 118, 123, 140, 144, 147, 148, 149, 150, 151, 153 and 154, but this list is by means exhaustive. In contrast, see pp 113, 130 and 207, where the text is hierarchically ranged in a manner that is more helpful to readers.

<sup>6</sup> Examples include ‘*noscitur a sociis*’, ‘*ejusdem generis*’ and ‘*expressio unius est exclusio alterius*’. At least one other example is to be found at p. 141 in chapter 5.

the of other common law jurisdictions, the book will no doubt have value as a reference tool in those jurisdictions.

A considerable part of this book deals with European Union (EU) law and its application to the UK. However, as a result of a national referendum held on 23 June 2016, the UK decided to withdraw from membership of the EU. Assuming the UK's imminent withdrawal from the EU takes effect, it will mean that this part of the book will require revision.<sup>7</sup> So sadly, the authors' timing in producing this book is unfortunate, not least for them. That being said, the legal impact of nearly half a century of EU membership will not go away; the convergence of concepts that has been a feature of legislative interpretation over that period suggests that "post BREXIT" – awful piece of jargon that it is – Courts and legislators will continue to keep a weather eye on and have regard to at least some of the concepts emanating from the Court of Justice of the European Union and the Member States. The two chapters devoted to EU law provide a wealth of information and ideas as well as useful guidance to further materials. While there may be a divorce, neither party is moving house. As an aside, one consequence of this decision will be that the weight of the common law in the EU will diminish with Ireland being the major common law jurisdiction remaining. Will gallant little Ireland fare any better than gallant little Belgium did a century ago?

### **Importance of lawyers being able to interpret legislation**

The authors, rightly in my view, stress the importance of lawyers early in their careers being capable of interpreting (or 'construing') legislation properly, rather than just developing it 'on the go'. As the distinguished British judge and jurist, Lord Wilberforce once observed:<sup>8</sup> "the interpretation of legislation is just part of the process of being a good lawyer".<sup>9</sup>

The authors rhetorically ask why these talents are so important for lawyers. The answer is of course simple. There is virtually no field of legal expertise that remains untouched by primary or secondary legislation, enacted or promulgated by Parliament and other law-making authorities, including for the time being the legislative bodies of the European Union. So, whether a lawyer practises criminal, commercial, company, competition, employment, family, immigration, property or any other area of the law, he or she needs to be familiar with the established interpretive 'rules of the road' when negotiating the various pieces of legislation involved.

The authors appropriately point out that few academic legal courses focus extensively on how to comprehend, interpret and apply the various forms of legislation as part of their students' training in substantive law. This was the case when I first studied law over 50

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<sup>7</sup> Nevertheless, at the time of writing this review, the UK remains a member of the EU, and so the law as described in the book for the time being remains current.

<sup>8</sup> House of Lords debates 9 March 1981, vol 418, col 73.

<sup>9</sup> So why do so few law schools provide a course specific to legislation? In my view, legislation should be a compulsory component of any undergraduate law degree course.

years ago and sadly the situation does not seem to have improved very much since. Since legislation forms a major part of the fabric of the law, it should surely be a compulsory component of every undergraduate law course.

## **The contents**

The book comprises 14 chapters, which I believe provide at least a basic coverage of legislation in the United Kingdom and how it is interpreted and applied.

### **Chapter 1**

The authors begin by identifying the main kinds of legislation that apply in the UK and outline the process of their enactment and their principal components. They consider the different kinds of legislation and how they are made. However, they make no mention of tertiary legislation (the various manuals of procedure and guidelines for implementing the primary and secondary legislation), to which the Courts appear to be paying more attention than previously.

### **Chapter 2**

In chapter 2, the authors provide a useful outline of the various components of statutes and subordinate legislation and the way in which they are structured and interrelate. Having set out these essential foundations, the authors turn to address the key principles and presumptions cited and applied by the courts of England and Wales in their construction of legislation. Although most legislative counsel and other practitioners will be familiar with these principles and presumptions, those who are not already familiar with legislative texts will find the contents of the chapter helpful. The authors claim that their approach to refer to up-to-date case law of the highest authority in order to give confidence that the principles we identify are ones with modern currency which can readily be cited and applied. I believe that, by and large, their claim is justified.

### **Chapter 3**

In chapter 3, the authors show how statutes should be read. This is followed by a discussion of the various rules of interpretation and presumptions<sup>10</sup> to which judges resort to help them to interpret legislation.

One of the interesting issues discussed in chapter 3 is the principle that legislation should be interpreted with regard to the issue (i.e. the ‘mischief’) that it was designed to fix. However, as the authors rightly maintain, “identifying the mischief the statute is intended to cure” is

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<sup>10</sup> I thought it a little odd that the authors included discussions of different presumptions in chapter 3 and in chapter 4. Why not deal with all of the ‘rules’ (or canons) of interpretation in chapter 3 and all of the various presumptions used by judges to interpret legislation in chapter 4?

only one aspect of the broader concept of “adopting a purposive approach “to interpretation and “to identify and give effect to the purpose of the legislation”. So, rather than the mischief rule, they say (and I agree) that it is generally preferable to refer to the need to give legislation a “purposive construction”, which is one which eschews a narrow literal interpretation in favour of one which is consonant with the purpose of the relevant legislation.

Another issue of interest discussed in chapter 3 is the presumption that penal statutes should be strictly construed in favour of the accused. In discussing this presumption, the authors address the willingness of the courts to rely on other interpretive factors to adopt broader interpretations of penal provisions despite that presumption. In support they quote Lord Steyn’s dictum that the presumption applies only “rarely ... as a rule of last resort ... if all other grounds of determining legislative intent have failed”.<sup>11</sup> Nonetheless, the authors identify a number of recent decisions seem to show that “the principle of strict construction of penal statutes ... is alive and well even if it may often give way to other canons of construction”. If this indeed the case, it is regrettable. Bearing in mind that criminal laws are designed to protect the public, an interpretation that leans towards the accused must at least be questionable.

Yet another topic of interest in chapter 3 is the presumption that a statute is not to be taken as effecting a substantial change in the existing common law unless Parliament makes this clear, either “by express provision or by clear implication”.<sup>12</sup> Since the purpose of an amending statute is to amend the law, the need for this presumption is surely questionable, except in relation to statutes designed to codify the common law.

#### **Chapter 4**

This chapter sets out a number of the most commonly applied ‘presumptions’ that the courts apply as to the effect of legislation.

One of the topics discussed is the presumption that a statute does not bind the Crown. Whether a statute is binding on the Crown (or the State or Government) is of paramount importance. Surely the topic warrants more than two sentences, particularly in view of the copious literature (including decided cases) that exists.

In discussing the presumption against retrospectivity, the authors rightly draw attention to the fact that the courts distinguish between two types of provision which “alter the existing rights and duties of those whom they affect”. Firstly, there are what have been termed ‘retroactive’ provisions. These are provisions “which change the substantive law in relation

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<sup>11</sup> *R (Junttan Oy) v Bristol Magistrates’ Court* [2003] UKHL 55, [2004] 2 All ER 555 [84] (Lord Steyn), declining to apply the principle where there was “at stake a cogent countervailing legal policy: the protection of health and safety at work is of overriding importance”.

<sup>12</sup> At p. 64



to events in the past” and therefore “actually affect the position before the legislation came into force”. Secondly, there are provisions which alter pre-existing rights and duties “only prospectively, with effect from the date of the commencement”. They rightly point out “the general presumption that legislation should not be treated as changing the substantive law in relation to events taking place prior to legislation coming into force”. This is a ‘powerful’ presumption, “so powerful indeed that any statutory provision, such as section 1 of the *War Damage Act 1965*, which is intended to apply in this way can be expected to say so expressly”. As the authors rightly argue, this is because of the obvious potential for such provisions to cause serious injustice.

The authors pay cursory attention to the presumption of *mens rea* in statutory offences. Here, they highlight the reluctance of the English Courts to go down the road of ousting the presumption as in Canada; rather, the strength of the presumption may be weakened and assume less importance having regard to the nature of the offence and the context of the statute. In this regard a pithy and elegant critique of the leading Canadian case, *Sault Ste Marie*, may be found in the judgement of the late Mr. Justice Hardiman in *CC v. Ireland and others*<sup>13</sup>. Its conclusion on the substantive issue is another matter.

Another topic discussed in this chapter is collective titles. A collective title is in effect a short title that refers to multiple Acts, sometimes with a date range and sometimes without.<sup>14</sup> However, multiple Acts concerning a single topic or closely related ones have become rare, with the inevitable consequence that collective titles have also become rare.<sup>15</sup> This is because most principal legislation is now almost invariably amended textually (rather than non-textually or indirectly), a development with which the authors seem to be unaware.

## **Chapter 5**

In chapter 5, the authors provide valuable guidance on what they call the ‘interaction of legislation’, that is, the ways in which one piece of legislation can affect the form, content, application or interpretation of another.

I was puzzled by cursory discussion of the methods for amending legislation (either textually (or directly) or non-textually (indirectly)). On the other hand, the discussion of implied amendments is detailed despite implied amendments now being comparatively rare. A possible explanation could be that the more extensive case law on such amendments. A further consideration may be that indirect amendment has, thankfully, become obsolete in

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<sup>13</sup> [2006] 2 ILRM 161, [2006] 4 IR 1, [2006] IESC 33. Also see the dissenting judgement of Keane J (as he then was) in *Shannon Regional Fisheries Board v. Cavan County Council* [1996] 3 IR 267.

<sup>14</sup> See, e.g. The *Income Tax Acts*, defined by s 5 of and sch 1 to the *Interpretation Act 1978* as meaning “all enactments relating to income tax, including any provisions of the *Corporation Tax Acts* which relate to income tax”.

<sup>15</sup> With the exception of Ireland.

many jurisdictions and rare in those that still use this unlamented means of amending legislation

Although the chapter contains an extensive discussion of the consolidation of legislation, no discussion of restatements or reprinting is to be found, despite extensive literature on these topics being available elsewhere.<sup>16</sup>

In addition to dealing with issues relating to the amendment, repeal and consolidation of legislation, the chapter deals with the general rules relating to the construction of legislation by reference to other legislation. Also discussed in this chapter are the inter-operation of statutes that are in *pari materia*<sup>17</sup> (that deal with a related topic), the use of parent statutes to interpret subordinate legislation and using subordinate legislation to interpret parent statutes.

## **Chapter 6**

In chapters 6 and 7, the authors consider some of the essential tools and contextual factors that can assist in the interpretation of legislation.

In Chapter 6, the authors discuss ‘internal aids to construction’ (which are those features and parts of a statute or other piece of legislation that can assist in interpreting the remainder of that legislation. The authors are, I believe, right in their assertion that headings of all kinds may be referred to as aids to interpret legislation.

I also agree with the authors’ contention that, although courts have stated that long titles cannot be used to interpret an Act unless the Act is ambiguous, this cannot have been intended to disallow reference to the long title to help determine an Act’s context and purpose, and whether there is an ambiguity in its terms to begin with.

The authors claim that where an interpretation provision seeks to define terms for the whole of an enactment, it will usually be found at the beginning or end of that enactment. However, while this is true of many jurisdictions (such as Australia and New Zealand), it is not the case in UK, where interpretation sections are usually located at or near the end of the statute.<sup>18</sup>

Later in the chapter, the authors discuss the use of expressions in interpretation provisions, such as ‘unless the context otherwise requires’ and ‘except where (or unless) the context otherwise requires’, to indicate that they will not apply to define a term if in certain instances the surrounding context requires that the words of that term should be read differently. However, in most cases computerisation and careful drafting should render such

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<sup>16</sup> See, e.g. D.E. Berry, “Keeping the Statute Book up-to-date—A personal view” *Loophole*, 2007, issue 3. at 33 and J. Erasmus, “Statute Revision in British Columbia Recent developments from a jurisdiction with a long history of statute revision”, *Loophole*, 2007, issue 3 at. 50.

<sup>17</sup> A further example of the authors’ penchant for Latinisms.

<sup>18</sup> In UK statutes, they are generally located at the end of the sections and before the schedules (if any).

phrases unnecessary. In fact, legislative drafting offices in most (if not all) Australian jurisdictions have dispensed with such expressions.

Although the chapter contains a useful discussion of what are commonly called ‘deeming provisions’<sup>19</sup>, they can occur not only in interpretive provisions, but also in substantive provisions, so it is difficult to see why the discussion appears in this chapter (Internal Aids to Interpretation).<sup>20</sup> I should also mention that in response to plain language critics’ criticisms, many legislative drafting offices (such as those in Australia) now eschew the terms ‘deem’ and ‘is (or are) deemed’ and prefer other expressions like ‘are taken to be’ or ‘are to be treated as’ instead.

I was surprised to find that the authors devoted significant space to the discussion of provisos.<sup>21</sup> Although still prevalent in commercial legal documents, to find a proviso in modern legislation is extremely rare, whether in the UK or in any other common law jurisdiction. As early as 1845, the jurist George Coode described provisos ‘as the bane of all correct composition.’<sup>22</sup> He questioned whether there is ever a need for a proviso. Former Deputy Minister of Justice, Elmer Driedger, described a proviso as “hardly more than a legal incantation”.<sup>23</sup> Provisos can invariably be replaced by clauses beginning with ‘but’, or ‘except if’ or ‘except where’. While in some instances, provisos can be used to assist in the interpretation of the provision, or piece of legislation, in which they occur, they more commonly occur in substantive provisions. It is therefore puzzling to find their discussion in this chapter, which is headed ‘Internal Aids to Construction’.

While discussing provisos, it seems appropriate to discuss the problem of ‘stacked’ provisos, where a proviso is followed by one or more others, thus giving rise to an ambiguity. Often it

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<sup>19</sup> See pp 129-131. ‘Deeming provisions’ are legislative provisions that lay down a hypothesis on the basis of which those applying the legislation, and those to whom it applies. The use of “deem” has been described as creating a legal fiction.

<sup>20</sup> In discussing ‘deeming provisions’, the authors identify the following circumstances in which they may be used:

- in the interpretation sections of a statute to modify a definition;
- in relation to the legal, jurisdictional or geographical status of particular persons;
- to regulate contractual terms;
- to affect the basis for the calculation of payments such as or compensation;
- to stipulate when something has been done, or regulate whether it has been done in time.

<sup>21</sup> The term ‘proviso’ is usually applied to wording designed to limit the scope or effect of the particular provision in which it occurs.

<sup>22</sup> G. Coode, *Legislative Expression (or The Language of the Written Law)*, London: W. Benning & J. Ridgeway (1845).

<sup>23</sup> E. A. Driedger, *The Composition of Legislation*, 2<sup>nd</sup> ed. (Minister of Supply and Services Canada: Ottawa, 1976) at 96.

is not clear that a second or later proviso qualifies a preceding proviso or the main proposition.

Finally, in chapter 6, the authors discuss savings provisions, which usually occur in amending legislation or legislation that repeals and re-enacts earlier legislation. Savings provisions are ones that ‘save’ situations that would otherwise cease to exist when the amending or repealing legislation takes effect. However, not only is the discussion of these provisions inadequate, but they fail to mention (let alone discuss) ‘transitional provisions’, the counterpart of savings provisions, which apply the new legislation (often with modifications) to situations that existed under the amended or repealed legislation. This omission is regrettable. Furthermore, as with provisos, it is difficult to understand why the authors have included their discussion of savings provisions in a chapter that is headed ‘Internal Aids to Construction’.

### **Chapter 7**

Chapter 7 contains a comprehensive review of those external aids<sup>24</sup> that can be used to help to interpret legislation. It first explores the rationale for recourse to external aids in interpreting legislation.<sup>25</sup> It then addresses how various specific aids have been used by the courts, focusing on the principal external aids connected with the legislative process that brought the relevant enactment into being, such as reports of parliamentary debates, explanatory notes and Law Commission reports. The chapter then concludes with a brief statement of the general principles which, it is submitted, can be derived from the case law in relation to the use of external aids generally. The authors point out that the rationale for having regard to external aids to construction is the fact that “[n]o legislation is enacted in a vacuum” and that, to be properly understood, *it must be understood in context*. They also, rightly in my view, state that external aids of all kinds can always be referred to for assistance in interpreting a piece of legislation through the elucidation of the general context in which it was enacted and the mischief at which it was aimed.

I was somewhat surprised to learn that, in the UK, ‘Notes on clauses’ are admissible as an aid to interpretation only when they have been published so as to make them ‘available to the public at large’, which, according to the authors, is not normally the case.<sup>26</sup>

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<sup>24</sup> By external aids’, the authors mean those documents outside the legislation that the courts may refer to in order assist them in determining the meaning of the legislation.

<sup>25</sup> There is a particularly good discussion of (*Pepper (Inspector of Taxes) v Hart* [1993] AC 593 (HL)), which enables a court, in certain circumstances, to have regard to parliamentary materials to assist in the interpretation of a statute.

<sup>26</sup> See *R (Public and Commercial Services Union) v Minister for the Civil Service* [2010] EWHC 1027 (Admin), [2011] 3 All ER 54 [53]–[55]. However, Sales J refused to take into account Notes on Clauses as an interpretive aid in that case. But won’t the Notes on Clauses be part of the public record?

In discussing ‘Explanatory Notes to Statutory Instruments’, the authors point out that they have been drafted by Government officials and published along with those instruments ever since the introduction of statutory instruments under the *Statutory Instruments Act 1948* (UK). The Notes are principally designed to give readers “a concise and clear statement of the substance and purpose of the instrument”. However, in my experience explanatory notes to statutory instruments are usually so brief as to provide no more than a very general overview of the statutory instrument concerned.

The authors also say that, since 1999, some UK statutory instruments laid before Parliament have been accompanied by an explanatory memorandum drafted by the responsible government department. The production of these memoranda has become standard practice for statutory instruments laid before Parliament since around 2005. Although it does not seem to be common in other jurisdictions for comprehensive explanatory memoranda to accompany statutory instruments, in Canada (at the Federal level) and in Australia (at both State and Federal level), all statutory regulations are accompanied by regulatory impact statements.

### **Chapter 8**

In chapter 8, the authors deal with the role of the *Interpretation Act 1978* (UK) in interpreting other UK legislation. However, the contents of the chapter are so trite and superficial as to be little value to lawyers and other readers of the book.

### **Chapter 9**

In Chapter 9, the authors provide a useful overview of how, in general terms, rules of international law affect the interpretation of UK legislation. This discussion is of particular value as many other books on legislation do not address this topic.

### **Chapter 10 to 12**

In chapters 10 to 12, the authors focus on the impact of two specific aspects of international law on questions of UK statutory interpretation, the European Convention on Human Rights and EU law itself. Chapter 10 addresses the former by discussing the effect that the *Human Rights Act 1998* has on the interpretation and application of UK legislation. However, if the efforts of certain British politicians are successful, the UK could withdraw from the European Human Rights Convention and thus render that Act ineffective. That step would involve abrogating an international agreement (the Good Friday Agreement) with all the turmoil that tinkering around with Northern Ireland entails. Time will tell.

In chapter 11, the sources, nature, anatomy and structure of EU law are discussed, while chapter 12 explains how EU law affects the interpretation and application of UK legislation, as well as how the courts interpret EU law itself. These two chapters provide some of the

best material of the book. The impending departure of the UK from the EU has elements of irony as well as tragedy and the authors deserve better than their work on these points to be rendered obsolete.

### **Chapters 13 and 14**

The authors conclude their book with some practical matters designed to assist with interpreting legislation. In chapter 13, they provide a brief overview of some of the main written and electronic resources that allow access to legislation or which may help in its interpretation. And finally, in chapter 14 they provide a practical checklist of useful ‘pointers’ and questions to bear in mind at the outset when construing statutory provisions, drawing together key parts of the learning in the rest of the book and identifying some further points that may arise. These chapters are unlikely to benefit experienced legislative counsel or other lawyers who regularly deal with legislation in the course of their day-to-day work. On the other hand, their contents could be useful to those unfamiliar with, or have a limited exposure to, legislation but want to locate or navigate a particular piece of legislation on a topic that is of concern to them.

### **Conclusion**

The authors say that their book aims to be an accessible point of reference and to serve as an introduction to the key materials and concepts in relation to statutory interpretation—both for qualified legal practitioners and for students of the law in general. They maintain that the book’s purpose is to provide a distillation of the basics as a ‘way in’ to the subject, which may be supplemented by the weight of learning which is to be found within the pages of more erudite works on legislation. They say their book provides a reference manual for those practitioners in need of a ‘quick principle’ with an authority to support it, and a signpost to the key cases they may need to consider. By and large, I think their claims are justified, but on the other hand, those UK judges and lawyers who are seriously concerned with the application of legislation will prefer to refer to the more comprehensive and erudite works on legislation and its application and interpretation. Nevertheless, this book will, despite its shortcomings, be useful for those practitioners who may not want to outlay considerable sums involved in acquiring one or more of those works. It would also be useful in providing a useful basic text book for courses on legislation at the undergraduate level, courses wanting in law courses at UK law schools in the past.

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## *Legislating for Wales*

Thomas Glyn Watkin with Daniel Greenberg, Public Law of Wales Series, published by Gwasg Prifysgol Cymru / the University of Wales Press, 2018

### **Reviewed by Dylan Hughes<sup>1</sup>**

Books on legislation are comparatively rare. Books on Welsh legislation are rarer still. And books on modern Welsh legislation don't exist. That is, until now.

*Legislating for Wales* considers how legislation is now being made for Wales since primary law-making powers were devolved in 2007. Its authors, Professor Thomas Watkin QC with Daniel Greenberg, have extensive knowledge of the legislative process and are genuine experts in their field. Professor Watkin was the head of the Office of the Legislative Counsel in Wales between 2007 and 2010; while Daniel Greenberg, formerly a UK Parliamentary Counsel, is an advisor to the Constitutional and Legislative Affairs Committee of the National Assembly for Wales as well as being the editor of (among other publications) *Craies on Legislation*.

The book has an interesting genesis.

As indicated above, modern Welsh legislation is only a recent phenomenon. The *Laws in Wales Acts* of 1535 and 1542 in effect annexed Wales into the Kingdom of England and repealed ancient Welsh laws that had been promulgated most notably by 10<sup>th</sup> century King Hywel Dda (Howell the Good). These laws are widely considered to have been just and progressive by the standards of their day, in particular as to the status of women. And they have been the focus of numerous publications, including by Professor Watkin himself as a legal historian at Cardiff and Bangor Universities.

From the 16<sup>th</sup> century onwards Wales had little or no legal and political identity, the outcome of attempts to bring about uniformity across England and Wales. This was not to come to an end until the creation of the office of Secretary of State for Wales (a member of the UK Government) in the 1960s and subsequently with the advent of devolution in 1999. However, the National Assembly for Wales established that year was not a fully fledged legislature and was able only to make subordinate legislation. It has only more recently had the competence to pass primary legislation.

The complex business of developing and promoting bills, therefore, is a relatively new task for Welsh Government officials and Ministers. And being competent to make effective use of the new legislative competence was not something that was taken for granted. Policy officials had little experience of developing detailed policy to be adopted as legislation, and lawyers primarily advised on the effect of existing law rather than creating it afresh. There was very little drafting capacity, at least until the Office of the Legislative Counsel became the newest drafting office in the Commonwealth (and in its early years one of the smallest) in 2007.

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<sup>1</sup> First Legislative Counsel, Office of Legislative Counsel, Welsh Government.

Conscious of its limitations, the Welsh Government developed one of the most comprehensive training programmes it had ever put together as part of a package of initiatives designed to ensure that it had the necessary expertise to produce new laws. In doing so the Government called upon the experience of the authors, with Professor Watkin taking a particular interest in the design of the programme in light of his academic background.

The book uses much of the material used in the training programme as its foundation, starting (as does the programme) with an explanation of the legal and constitutional context before embarking on an analysis of how to go about developing law – from start to finish.

To borrow from its preface, the purpose of the book is to “raise a critical awareness of what sound law-making involves, both among those who make laws and those who are affected by them” and its target audience is broad in scope, being

aimed [not] solely, or indeed chiefly, at those who prepare and make legislation within the institutions of government, although it is hoped they will find it of use. It is equally intended for the citizens whose lives are affected by legal change, whether individually or as member of voluntary organizations, charities, local communities or other entities with an interest in the quality of the laws which govern them and the society in which they live.

This sets a high bar as anyone who has sought to communicate what can often be complex and intricate concepts in simple form can vouch for.

The book explains in some detail the legislative processes of the National Assembly as well as providing a chapter (chapter 4) on the competence and constraints of the National Assembly. This also usefully summarises the differences between the Welsh legislature and those in Scotland and Northern Ireland. Of particular interest perhaps are consideration of some of the innovative features of law-making in Wales, in particular drafting legislation bilingually (chapter 8) and our Committee stages of scrutiny (chapter 7).

For those outside government it also lifts a little of the veil on who does what when developing legislation, explaining the individual and collective roles of those in a Bill team. Curiously, however, very little is said about the role of legislative counsel, which is surprising given who has authored the book. Perhaps they wanted to retain whatever mystique we might have.

The book is part of a wider series called the “Public Law of Wales” published by the University of Wales Press – the first such collection since laws began to be made again in Wales in 1999. Interestingly the series has been published in traditional form, as a series of hardback and paperback books. This leads to an interesting question as to whether this is a sustainable form of publication, in particular where updating revisions will be required. Like other smaller jurisdictions the market for materials of this nature in Wales is not extensive, which is a matter of general concern. Rightly or wrongly providing explanatory material on



the law across England and Wales has long been the preserve of the private sector, but as the laws of Wales on the one hand and the laws of England on the other, diverge, the role of the state is something we in Wales need to reconsider.

It could be said, therefore, that the book's most significant triumph is in its existence. And on that theme I will leave the last, eloquent, words to the writer of the foreword to the book, the former Lord Chief Justice of England and Wales, Lord Thomas of Cwmgiedd:

There are some who share the view often attributed to Chancellor Otto von Bismarck that laws are like sausages; it is best not to see how they are made. Whether such a view is properly attributed to Bismarck is a subject of debate, but what is beyond debate is that the process of law-making must be properly understood. That is because a clear exposition of the process is essential in ensuring that it is a proper one. And a proper process is, in any age, but particularly in an age of populism, essential to the maintenance of democracy.

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